



## What is the PSPC Change Package?

The “Change Package” details the leading practices that together address the Aim and Goals of the PSPC. They are executed by the teams as they strive for transformation of their organization's delivery of health care. The Change Package has been developed through site visits to high performing organizations that have achieved outstanding results (*see Appendix B*). It has been reviewed and vetted by a panel of national experts and serves as the catalogue of leading practices that teams will adapt using an accelerated improvement process.

The Change Package is an evolving document that has been honed as teams test and refine the leading practices in their patient care settings. It continues to improve as we move forward together in a learning community of practice.

The PSPC faculty is drawn from the high-performing organizations and participating PSPC Teams. Throughout the 12 months of the Collaborative, the faculty provides guidance on how teams can test and implement these strategies to achieve breakthrough improvements. Change concepts and specific action steps will be sufficiently defined so that teams can initially test recommended changes in their delivery system and track them within their Population of Focus. Throughout the collaborative, the faculty, successful teams, and consultants serve a major role in supporting the PSPC teams as they work and learn together to implement a patient-centered, inter-professional team approach in the delivery of clinical pharmacy services and practices that improve patient safety.

## What are the PSPC strategies and change concepts?

**Leadership Commitment: Develop organizational relationships that promote safe medication-use systems and optimal health outcomes**

- A. Foster a culture of quality and safety with a vision of integrated clinical pharmacy services to improve safety and health outcomes
- B. Form partnerships to achieve a shared compelling vision by aligning and leveraging resources
- C. Build the business case and foundation for the sustainability of integrated clinical pharmacy services

**Measurable Improvement: Achieving change using the value and power of data-driven improvements**

- D. Collect, analyze, and disseminate the data that are necessary to guide improvement in process and results
- E. Manage the delivery system on safety improvement by implementing safe practices and tracking safety outcomes
- F. Manage the delivery system for improvements in health outcomes for high-risk patients

**Integrated Care Delivery: Build an integrated health care system across providers and settings that produces safety and optimal health outcomes**

- G. Develop an integrated multi-professional care team that includes clinical pharmacy services
- H. Develop a delivery system with an established primary health care core and linkages with other providers and settings
- I. Coordinate care transitions among providers and settings, with medication reconciliation at each care transition

**Safe Medication Use Systems: Develop and Operate by safe medication-use practices**

- J. Systematically introduce and institutionalize safe medication-use practices and monitoring procedures
- K. Establish on-site clinical pharmacy services
- L. Implement pharmacy services and safe medication practices in the absence of an on-site pharmacist

**Patient-Centered Care: Build a patient-centered medication-use system**

- M. Engage patients and families in achieving safe care and optimal health outcomes
- N. Establish patient self-management as a practice that is tracked and improved over time
- O. Provide culturally appropriate services by developing the understanding and competencies that providers need to engage their patients

## How can I use the PSPC Change Package?

The PSPC Change Package is a dynamic document that is intended to be used in conjunction with other materials developed for the PSPC. The ‘Readiness Actions’ and ‘First Things First’ pages were created to help teams advance through the different stages of developing and implementing clinical pharmacy services. We heard from many teams from the previous cohorts that these action items helped them lay the foundation for their PSPC work.

The PSPC Change Package is organized into five color-coded strategies to achieve accountability for results:

- Leadership Commitment
- Measurable Improvement
- Integrated Care Delivery
- Safe Medication Use Systems
- Patient Centered Care

Each strategy includes change concepts and each change concept is accompanied by action items. Action items are referenced to specific organization(s) that were identified in 2007 (*see appendices A and B*). These cross-references are provided only for the purposes of example and do not imply that the action items are limited to a particular organization.

Teams are encouraged to implement all action items under each change concept. The action items that are stated in the color green are actions that an organization should focus on first and foremost. The green action items are strategically highlighted, as these items have been identified by PSPC faculty to be critical steps in order to achieve overall, successful results.

The PSPC Change Package includes ‘Putting the “Action” into action items’, which are examples of the action items at work from the PSPC teams across the country.

Finally, helpful tools, resources and definitions are also included in the PSPC Change Package. Together, all these elements provide an easy-to-understand document that will help teams advance the PSPC Aim.

The sections described above are arranged in this document in the following order:

<p>Strategy to Achieve Accountability for Results</p> <p><b>Key Change Concepts for Improved PSPC</b></p> <p>Suggested Action Items</p> <p><b><i>PUTTING THE “ACTION” INTO ACTION ITEMS</i></b></p> <p><b>TOOLS AND RESOURCES</b></p>
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## READINESS ACTIONS

The “Readiness Stage” is the first stage in development of clinical pharmacy services (CPS). In the Readiness Stage, the system is committed to providing CPS and is organizing their resources to implement, but they are not yet ready. In this stage, there is little or no use of PDSA's.

### 1. Perform quick self-assessment using change package

*(Please see the [Healthcare Communities Portal for the PSPC Self-Assessment tool:](#)*

<http://www.healthcarecommunities.org/workarea/downloadasset.aspx?id=4294971288> - Copy and Paste this link)

- What are the relationships I need to develop to perform on each strategy?
- Who should we partner with?
- What are the assets we have to carry out each strategy?
- What are the assets we need to line up?
- Who are the people to move this forward?
- What will show it is working?

### 2. Organize information on the need for, and the benefits of, CPS

- Have a case for the need for change
- Use success story from another community
- Identify acknowledged problem situations that would be improved by CPS
- Use readily available data to make case for CPS.

### 3. Reach out and set communications with other interested parties up front

- Use training to engage Senior Leaders
- Identify individual provider interests
- Talk to IT early and understand capacity for improvement through IT
- Identify physician champions
- Introduce case for CPS in strategic and operational planning
- Ask leadership to charter the effort

### 4. Move partners and champions into place (organizations and providers)

- Convene people that “want a change, have ideas for change”
- Involve interested providers
- Involve patients and families on a planning committee
- Discuss information on benefits to CPS
- Document and share needs and interests
- Prepare for “first things first”

### 5. Identify potential high-risk populations of focus and map CPS

- Survey staff on what health status and medication risks to focus on
- Develop estimates of baseline patient flows.
- Draft referral criteria
- Draw CPS as a workflow integrated into current practice.

## **FIRST THINGS FIRST**

The “First Things First Stage” is the second stage in the development of clinical pharmacy services (CPS). In the First Things First Stage, the health system begins with the first PDSA cycles. The inter-profession health care team convenes on a regular schedule, working with the Change Package and installing CPS. This stage begins when patients are receiving CPS. In this stage, the CPS process is defined and both the services and results are being tracked.

### **1. Have organizational leadership in action**

- Have leadership call for change
- Have leadership charter the team
- Have leadership make commitments to support the team

### **2. Speak of measurable improvement**

- Develop a “story”
- Create sense of urgency with examples and data
- Show base line data
- Tell how others do it
- Show partners “what’s in it for me”
- Promise retention of providers and patients

### **3. Convene the action team**

- Bring the right people together
- Meet weekly
- Use a rapid improvement model
- Decide on system of documentation/rules
- Start small but plan big
- Plan first PDSAs using change package

### **4. Begin integrating services through education of players**

- Educate leadership on opportunities and interest
- Involve IT very early as a partner
- Educate providers on CPS potential and opportunities
- Engage and enroll clinicians on the team vision for CPS

### **5. Present a picture of the CPS as a well-defined operation**

- Create a vision of CPS as a way to reduce errors and improve health outcomes
- Communicate the vision in an exciting way
- Define the population of focus
- Establish the patient referral triggers/protocols to CPS
- Produce the flow chart of the CPS operation (planned and actual)

### **6. Get patients engaged early**

- Educate patients to increase engagement with CPS
- Include patient in QI work
- Develop community support for CPS

## PSPC STRATEGIES

### LEADERSHIP COMMITMENT:

Develop organizational relationships that promote safe medication-use systems and optimal health outcomes

- A. **Foster a culture of quality and safety with a vision of integrated clinical pharmacy services to improve safety and health outcomes.<sup>a</sup>**
- A1. Assess organizational needs for quality, safety, and health outcomes improvements (e.g., by conducting surveys on patient satisfaction, provider satisfaction, and safety culture, respectively; by conducting needs assessments, and by utilizing error reporting data).<sup>1</sup>
  - A2. Identify areas for improvements, by seeking input through staff meetings, patient safety committees, and community members; and use findings to guide process changes.<sup>2</sup>
  - A3. Set clear organizational goals for quality, safety, and efficiency improvements by focusing on identified needs and areas for improvement.<sup>3</sup>
  - A4. Provide staff with tools needed to accomplish organizational goals for quality, safety, and efficiency (e.g., Lean, plan-do-study-act [PDSA], failure mode effects analyses [FMEA]).<sup>4</sup>
  - A5. Communicate and reinforce consistent messages of goals and expectations throughout the organization (e.g., display organization mission and goals prominently such as in posters, employee badges, and include it in job descriptions).<sup>5</sup>
  - A6. Put the focus on “patient and safety” in the organizational mission and vision.<sup>6</sup>
  - A7. Establish a culture of safety by examining and changing system processes rather than by blaming individuals involved in reported error events.<sup>7</sup>
  - A8. Train all employees in safety and quality (e.g., set aside one day a month for staff development, in-service training, and education; conduct annual assessment of competencies).<sup>8</sup>
  - A9. Establish an organizational chart that gives each provider group equal access to leadership and decision-making (e.g., incorporate the chief of pharmacy services in the highest leadership/management level of the organization).<sup>9</sup>
  - A10. Develop a learning network with leaders from other organizations to improve quality (e.g., meet regularly with regional and local leaders to share successes and failures).<sup>10</sup>
  - A11. Identify and eliminate interruptions at the workplace (e.g., remove telephones from areas where working requires concentration).<sup>11</sup>
  - A12. Assess the qualities of new team members by asking creative and effective questions during recruitment, and build a team that:
    - is bilingual or multilingual,<sup>12</sup>
    - is locally trained or has grown up in the local community,<sup>13</sup>
    - has a residency background in primary care settings,<sup>14</sup>
    - understands the challenges faced by the poor<sup>15</sup>
    - is willing to work with and help the poor,<sup>16</sup>
    - has a sense of idealism and cooperation,<sup>17</sup> and
    - is flexible and willing to work with a variety of people.<sup>18</sup>

*Putting the “Action” into action items*

- **RPh4BO (Pharmacists for Better Outcomes) (Great Falls, MT)** did an initial training session at each site upon joining PSPC: “A team effort to making medication therapy safe - ADE/pADE-identification and reporting.” It was a 45 minute lecture with a 30 minute “all teach – all learn session.” Leadership made this a mandatory session, in which they attended as well. This provided for a cohesive start to our team.
- **The Polyclinic ACC (Seattle, WA)** has the provider and quality coordinator send monthly e-mail updates to the clinic’s leadership and PSPC team. This keeps everyone well informed and enhances leadership’s buy-in as the project progresses. The Medical Director invited a team member to the Quality Committee to share her experience with PDSA cycles.
- **Share Our Selves (Costa Mesa, CA)** pharmacy department initiated a 360 degree evaluation of their diabetes program. A patient focus group participated in an evaluation and brainstorming exercise to improve the patient MTM experience. All providers were surveyed about their experience with CPS, which was evaluated via an online survey tool. The pharmacy department also held an A3 continuous quality improvement meeting. Recommendations from all perspectives were reviewed and transparently shared with leadership.
- **Medication Education Team (MET) (Dover, NJ)** attends the management QA/PI committee meetings. Program accomplishments are regularly presented to the Board of Directors and clinical and non-clinical staff, and the team is encouraged to give presentations on their successes at regional and national conferences. This year, the CEO converted the clinical pharmacy position to a full-time position, affirming the organization’s commitment to our CPS program and the PSPC.
- **Norwegian American Hospital (NAH) (Chicago, IL)** gave a presentation, led by the pharmacy department leadership, on how Clinical Pharmacy Services addresses patient safety and outcomes and how it contributes to the hospital's strategic plan and future direction to senior leadership. Immediately after the presentation, the CEO verbalized his full support of the hospitals' PSPC team, acknowledging the PSPC systems approach as a model for others to follow.

**B. Form partnerships to achieve a shared compelling vision by aligning and leveraging resources.**

- B1. Participate in a network of providers to share effective strategies to streamline care processes.<sup>19</sup>
- B2. *Involve the organization in local or national patient safety initiatives (e.g., “5 million lives” campaign, FLEX program, Executive Leadership Training, statewide patient safety initiatives).*<sup>20</sup>
- B3. Form an advisory group consisting of community members to recommend improvements from a patient perspective.<sup>21</sup>
- B4. *Establish partnerships and collaborations with nearby Schools of Pharmacy to provide technical assistance and educational opportunities.*<sup>22</sup>
- B5. Participate in pharmacy residency programs through clinical pharmacy training opportunities and/or student volunteer programs in safety-net settings.<sup>23</sup>

*Putting the “Action” into action items*

- **Family Health Pharmacy (Greenville, OH)** signed an agreement with local hospital to meet with patients who are high risk. The team has gone on site to reconcile med lists when they are near discharge and then filled all of the discharge prescriptions for the patients and delivered them to the patient in the hospital. This confirms that the patients were sent home with the current medications ordered and that they received counseling on each. They were encouraged to pursue Medicaid or other insurance benefits they might be eligible for and they also were given the amount it would cost them to refill all the meds they were sent home with so they could plan for

the expenditure. We worked with our patient assistance coordinators to get some medications under these programs and used United Way funds to cover the costs of other meds as the patients were indigent.

- **Jefferson County Collaborative (Birmingham, AL)** worked with team partner, Samford to pursue and ultimately receive affiliation with another local state university for pharmacy practice residents to be able to pursue a Master of Public Health (MPH) degree. In doing so, Samford University pharmacy residents attain automatic acceptance to the UAB School of Public Health, a waiver of UAB's Graduate Record Examination (GRE) requirement, and are offered a tuition discount through the UAB School of Public Health.
- **Norwegian American Hospital (NAH) (Chicago, IL)** serves as an experiential site for hospital and general medicine Advance Pharmacy Practice Experience (APPE) for several College of Pharmacy in and out of the state. In preparation of providing CPS in the ambulatory care setting the department of pharmacy partnered with Roosevelt University College of Pharmacy that provided 0.2 FTE Pharmacy Faculty to support the program. In addition, the current pharmacy department experiential program expanded the program by opening 2 ambulatory care APPE slots per 6 week module. The first round of PharmD students from Chicago State University College of Pharmacy that participated in the Ambulatory Care rotation were actively involved with the assistance of other members of the PSPC team in developing, piloting as well as providing feedback on the workflow map of clinical pharmacy services. Students were fully engaged, motivated and fully appreciated the experience of learning that the important steps in creating a new program. Without the assistance of the seasoned PharmD, it would have taken several months to accomplish all the tasks that were completed in 6 weeks.

### **C. Build the business case and foundation for the sustainability of integrated clinical pharmacy services.**

- C1. Collect data on safety, cost, and health outcomes, and use findings to support the business case by demonstrating value in clinical pharmacy services (e.g., compare outcomes for patients who do and do not see a clinical pharmacist).<sup>24</sup>
- C2. Seek funding for quality improvement opportunities from local or national sources, and identify a plan for sustainability early in the implementation process<sup>25</sup> (e.g., consider sharing cost of clinical pharmacist's salary with a nearby School of Pharmacy in exchange for overseeing clinical rotations;<sup>26</sup> seek reimbursement for services from an employer-based health plan by demonstrating improved health outcomes;<sup>27</sup> use MTM services, savings from 340B drugs, and a community fundraising program<sup>28</sup>).
- C3. Maximize the clinic's 340 B drug-pricing program by creating opportunities for pharmacists and other providers to learn about drug pricing, and educate staff and patients about the most cost effective therapeutic plan.<sup>29</sup>
- C4. Use external resources to develop or help inform the business plan (e.g., American College of Clinical Pharmacy).<sup>30</sup>
- C5. Use cost savings and outcomes data to build a business case to assist the organizational leadership in decision-making to support clinical pharmacy services.<sup>31</sup>
- C6. Document and track business-specific data, including soft and hard dollars (e.g., illustrate time savings to physicians resulting from clinical pharmacy services and medication Reconciliation<sup>32</sup> and avoided hospitalizations).<sup>33</sup>
- C7. Identify and utilize research opportunities (e.g., involving residents) that provide the evidence and outcomes to support the business case for patient safety and clinical pharmacy services.<sup>34</sup>

### *Putting the “Action” into action items*

- **Mission OP Anticoagulation Clinic (Asheville, NC)** implemented a new pharmacist role - "Administrative Pharmacist." This designation is rotated among the Clinical Pharmacist Practitioners (CPP) in the clinic. Responsibilities include responding to questions from providers, patients, and staff, either by phone call, email, or face-to-face; addressing new patient referrals; reviewing patients recently admitted/discharged from the hospital; home health patients; student/resident precepting and seeing walk-in and emergent patients. The creation of this role significantly decreased interruptions of team members and eliminated disruptions to the established work schedule.
- **Jefferson County Collaborative (Birmingham, AL)** presented data showing improvement in A1C from PSPC-related interventions to the Jefferson County Department of Health’s Executive Team. They also presented PSPC patient outcome data at Jefferson County Department of Health Provider Meetings.
- **EVMS (Norfolk, VA)** on-site case managers and leadership piloted a tool for collecting health improvements that will eventually assist to projected care costs and savings made by CPS. A process is now in place to routinely collect data that can be forwarded to Leadership for inclusion in a business case and used for expansion of funding and sustainability.
- **Harris County Hospital District (HCHD) (Houston, TX)** used cost savings from a diabetes service to show how only 1/2 day of CPS intervention reduced ER and hospital admissions.
- **USC’s , (Los Angeles, CA)** campus pharmacy manager reviewed the medication formulary and identified opportunities to maximize the use of generic medications purchased through the 340B program, as well as free medications through the Patient Assistance Program. The total annual medication purchase cost savings was approximately \$700,000 in 3 clinics partnering with USC.
- **Holyoke Health Center (Holyoke, MA)** has partnered with Boston Medical Center Health Net Plan (BMC: a Medicaid managed care organization) to trace pre and post MTM per member per month spending and health care outcomes on 50 BMC patients.
- **Jefferson County Collaborative (Birmingham, AL)** prepared the Diabetes Clinic Protocol and attained provider support for the protocol using a physician-champion.

### **Tools & Resources**

Becoming a High Reliability Organization: Operation Advice for Hospital Leaders (AHRQ)

<http://www.ahrq.gov/qual/hroadvice>

Leadership Guide to Patient Safety (IHI)

<http://www.ihl.org/knowledge/Pages/IHIWhitePapers/LeadershipGuidetoPatientSafetyWhitePaper.aspx>

Strategies for Leadership: Patient- and Family-Centered Toolkit (AHA)

<http://www.aha.org/aha/issues/Quality-and-Patient-Safety/strategies-patientcentered.html>

Tailoring Initiatives to Meet the Needs of Diverse Populations: A Self-Assessment Tool (Joint Commission) <http://www.jointcommission.org/assets/1/6/HLCOneSizeFinal.pdf>

## MEASURABLE IMPROVEMENT:

Achieving change using the value and power of data-driven improvements

- D. Collect, analyze, and disseminate the data that are necessary to guide improvement in process and results**
- D1. Develop a plan for capturing data on process improvements (e.g., use an ACCESS or FileMaker Pro software if electronic medical records (EMR) or a patient registry is unavailable;<sup>8</sup> if EMR is available, ensure that IT systems design allows for performance and outcomes monitoring and user-friendly data extraction).<sup>35</sup>
- D2. Perform random or peer-to-peer audits of charts documenting provider performance monthly, and review the results with entire care team to investigate the identified lapses in care processes (e.g., patient outcomes not improving as expected, tests missing; lack of follow-up or adequate documentation; and suboptimal choice of medications, dosages, or treatment plans).<sup>36</sup>
- D3. Assess the gaps in safety and efficiency to improve the processes of care by using methods such as root-cause analysis,<sup>37</sup> PDSA,<sup>38</sup> FMEA,<sup>39</sup> Lean,<sup>40</sup> Six Sigma, or Cause and Effect Diagram.
- D4. Analyze data trends and compare your performance with other similar organizations for benchmarking and establishing baselines or trending data over time and after the tests of improvements.<sup>41</sup>

### *Putting the “Action” into action items*

- **The Gurabo Community Healthcare Center -GCHC - (Gurabo, Puerto Rico)** has partnered with QIPRO to adopt particular database forms. These are completed by clinical pharmacists and PharmD Candidates in order to document patients’ goals and outcomes. The GCHC Pharmacy Collaborative methods have highlighted the importance of Patient Safety.
- **Jefferson County Collaborative (Birmingham, AL)** developed and implemented a method for electronic submission of data while on the floor during patient care activities and utilized data from patient care activities to demonstrate efficacy of service to providers.
- **Jefferson County Collaborative (Birmingham, AL)** utilized data from the PSPC Collaborative to secure grant funding to further support patient care and utilized data from patient care activities to garner support for expansion of service.

- E. Manage the delivery system on safety improvement by implementing safe practices and tracking safety outcomes.**
- E1. Develop a plan for capturing patient-safety data (e.g., develop or use an existing system to identify medication errors).<sup>42</sup>
- E2. Establish systems to facilitate error reporting and identification (e.g., place error reports adjacent to patient medical records; provide electronic templates; embed in EMR; standardize paper forms; implement patient-safety walk-arounds, and ask staff for their input about areas prone to errors<sup>18</sup>).<sup>43</sup>
- E3. Practice transparency by implementing a standardized error-reporting system,<sup>44</sup> encouraging reporting of adverse drug events (ADE) and medication error, sharing results with staff and organizational leadership regularly (pharmacy and therapeutics [P & T] committee, Board of Directors, monthly staff meetings),<sup>45</sup> and putting employee protections in place to encourage staff to report these events without fear of persecution.<sup>46</sup>
- E4. Classify errors by severity of harm (i.e., low severity of harm including circumstances or events that have the capacity to cause error, or circumstances under which errors occurred but the medication did not reach the patient and/or did not cause harm; high-severity harm considered to be errors that

occurred and resulted in need for treatment or intervention and caused temporary or permanent harm, near-death effect, or resulted in patient death) and put systems and protocols in place to address errors by such classifications (e.g., review and discuss low-harm errors with staff; conduct root-cause analysis or FMEA for severe errors).<sup>47</sup>

- E5. Review errors continuously, and develop policies to address them within a specified time (e.g., within 5 days).<sup>48</sup>
- E6. Adopt a preventive approach to error reporting, each time asking what could be done to prevent the reported error from happening again.<sup>49</sup>
- E7. **Capture near misses and share those reports with staff and relevant committees to implement system-level improvements.**<sup>50</sup>
- E8. Share the ownership of risk, and aim for initially high rates of near misses, with the understanding that initially high rates (or increases) of near misses indicate accurate reporting and a culture of safety.<sup>51</sup>
- E9. Develop a process for identifying solutions for prevention of near misses (e.g., by documenting and exploring the sources and probable causes of near misses or by conducting FMEA and root-cause analyses).<sup>52</sup>
- E10. Involve patients in the adverse event-reporting process, and use the data to inform process change by providing visible and easy-to-use reporting forms that are accompanied by educational materials (e.g., incorporate questions about medication safety in patient satisfaction surveys).<sup>53</sup>
- E11. Monitor and track system errors (e.g., establish an internal quality assurance process, anonymous reporting, a blameless system-based approach to error reporting,<sup>54</sup> and an electronic reporting system where feasible).<sup>55</sup>
- E12. Conduct a root-cause analysis for high-severity errors to help improve processes and to avoid future medication errors.<sup>56</sup>
- E13. If electronic medical records are in place, utilize EMR to prospectively identify three levels of cross-checking: drug-drug, drug-allergy, and drug-diagnosis interactions.<sup>57</sup>

### *Putting the “Action” into action items*

- **The Gurabo Community Healthcare Center -GCHC (Gurabo, Puerto Rico)** reported ADEs identified through Rx 30 dispensing program, clinical pharmacists or PharmD Candidates encounters with patients. These are presented to the Pharmacy and Therapeutics (P &T) Committee and Quality Improvement (QI) Committee every 3 months. The continuous improvement process also includes written communications to pertinent health care providers, discussion sessions during faculty meetings and audits to help avoid potential ADEs.
- **Medication Education Team (MET) (Dover, NJ)** developed and has continuously PDSA’ed an excel spreadsheet to track health and safety outcomes. Over the past year, the data collection tool has been significantly improved to make it easier for data entry, clear as to what information is required, and concise. Using excel functions, data is sorted and filtered to identify the five different POFs, facilitating analysis and input in their monthly reporting sheet to the PSpC and the QIO.
- **Norwegian American Hospital (NAH) (Chicago, IL)** collected information on a Microsoft Excel spreadsheet developed to classify data into three categories: demographic, therapeutic and safety metrics (ADRs and pADRs). Patients participating in the DSME/T program have their medication profiles screened for ADRs and pADRs at each encounter. Based on their experience screening patients for safety outcomes they have spread this process to other areas of pharmacy practice within the hospital. Safety metrics are now incorporated in the hospital clinical intervention tracking program and are reported with the other clinical intervention data. Out in the community setting pharmacy students perform ADR and pADR screening when participating in Brown Bag (Medication Review) Clinics.

## F. Manage the delivery system for improvements in health outcomes for high-risk patients.

- F1. Develop a system for ongoing data collection of patient outcomes for high-risk patients (e.g., patient registries, EMR, or ACCESS database if EMR is unavailable),<sup>58</sup> and use the data to monitor the effectiveness of interventions (e.g., track HbA1C for diabetic patients, review data with team, and prominently display aggregate data for patients to view success).<sup>59</sup>
- F2. Identify high-risk patients and put a process in place to make sure they return for follow-up appointments (e.g., if you have access to registries or EMR, automate follow-up visit reminders to high-risk patients).<sup>60</sup>
- F3. Review outcome data and share the rates and trends within the organization to monitor achievement of goals and targets.<sup>61</sup>

### *Putting the “Action” into action items*

- **Mission OP Anticoagulation Clinic (Asheville, NC)** identifies high-risk patients and has a process in place to make sure they return for follow-up appointments. For example, no-shows are called the same day (this ensures new and high risk patients who miss appointments are getting appropriate follow-up). The Clinical Pharmacist Practitioners (CCPs) perform random or peer-to-peer audits of charts documenting provider performance monthly. These results are reviewed with the entire care team to investigate any identified lapses in care processes. In addition, the CCP reviews all RN notes from the previous day. CCPs review critical INRs (INR > 5) daily, they conduct random hand hygiene audits, report monthly quality data to leadership and share the data with staff (adverse events and Time in Therapeutic Range (TTR). Non-clinical staff performs daily audits to ensure each provider has entered a note and INR results on each patient seen in clinic that day to ensure there are no omissions.
- **Mission OP Anticoagulation Clinic (Asheville, NC)** starting in September, 2012, the CPPs will lead bi-monthly staff “catch-up” meetings at lunch to review processes and provide education training.
- The **Gurabo Community Healthcare Center -GCHC (Gurabo, Puerto Rico)** receives referrals from clinical and non-clinical providers and interested patients or their relatives. The Pharmacy Collaborative utilizes the American Diabetes Association Standards in order to help attain desired goals, as well as, to help avoid ADEs. In our PoF, clinical interventions regarding metformin gastrointestinal effects, hypoglycemia and microalbuminuria are noteworthy. The collaborative monthly newsletter disseminates to patients, clinical and non-clinical employees concerns and improvements related to ADEs.
- **Jefferson County Collaborative (Birmingham, AL)** utilized data in bi-weekly meetings to design new PDSAs and to track continual improvement in patient outcomes.

### **Tools & Resources**

The Physician Practice Patient Safety Assessment (ISMP)

<http://www.ismp.org/selfassessments/physician/PPPSA.pdf>

Ambulatory Patient Safety Indicators (AHRQ)

<http://www.ahrq.gov/downloads/pub/advances/vol4/Kleinpeter.pdf>

Patient Safety Applicator Tool (AHRQ) <http://www.ahrq.gov/downloads/pub/advances/vol4/Akins.pdf>

ASHP Health-System Pharmacy 2015 Initiative Self-Assessment Tool

<http://www.ashp.org/DocLibrary/Policy/2015/2015-Self-Assessment-Tool.aspx>

Competence Assessment Tools for Health-System Pharmacies Software (ASHP)

<http://ebooks.ashp.org/product/competence-assessment-tools-for-healthsystem-pharmacies>

## INTEGRATED CARE DELIVERY:

Build an integrated health care system across providers and settings that produces safety and optimal health outcomes

### **G. Develop an integrated multi-professional care team that includes pharmacy services.**

- G1. Establish trust and good communication among the participating providers by creating a standard protocol for collaborative practice agreements for clinical pharmacy services within and across organizations.<sup>62</sup>
- G2. Practice effective and appropriate referrals, and leverage provider time (e.g., refer patients who are on simple medication regimens to nurses, dietitians, nutritionists, educators;<sup>63</sup> refer complex or polypharmacy patients to a clinical pharmacist.<sup>64</sup>
- G3. Promote internal collaborations to build teamwork among nurses, physicians, pharmacists, and other providers (e.g., bring interdisciplinary teams together to develop, implement, evaluate, and improve initiatives;<sup>65</sup> create a Medication Safety Committee with pharmacists, physicians, and nurses to monitor patient safety reports and to set policy;<sup>66</sup> when making new hires, seek to hire staff who have been trained to work in a collaborative environment.<sup>67</sup>)
- G4. Rotate dispensing and clinical pharmacist duties to reduce burn-out, maintain the skill set, and reduce the opportunity for errors.<sup>68</sup>
- G5. Conduct an annual competency assessment of providers, incorporating assessment on patient safety measures.<sup>69</sup>

### *Putting the “Action” into action items*

- **RPh4BO (Pharmacists for Better Outcomes) (Great Falls, MT)** nursing home team structure includes: Nursing Home Administrator, Director of Nursing, Medical Director, Consultant Pharmacist, Dispensing Pharmacist, Nursing Staff and Certified Nursing Assistants. Each party has a responsibility in ADE/pADE identification and data collection. The Dispensing Pharmacist plays an innovative role as they provide a huge check in the safety of the medications prior to being dispensed. Having leadership on the team with actual data collection responsibilities also provides a great example for other team members.
- **Holyoke Health Center (Holyoke, MA)** has established a new employee orientation module that educates new staff about the onsite 340B pharmacy and the culture and practice of integrated clinical pharmacy services.
- **Mission OP Anticoagulation Clinic (Asheville, NC)** uses an interdisciplinary pathway model to provide patient services. The model was enhanced following an initial process mapping of the clinic’s patient flow. Enhancements included adding registered nurses to the pharmacist-managed clinic, adding the Administrative Pharmacist role, and stratifying length of patient visit time based on risk.
- **Jefferson County Collaborative (Birmingham, AL)** trained pharmacy students and residents to provide care in diabetes clinics and provided training on medication errors and safety to fourth year pharmacy students through the Quality Improvement Officer for JCDH.
- **Share Our Selves (Costa Mesa, CA)** uses the referral system in the EHR to request pharmacy disease state management services or MTMs. Providers can also enter additional, specific requests into the EHR. There is a collaborative agreement in place for specific medication initiation and adjustment that can be performed by the pharmacist. All CPS visits are entered as a CPS encounter in the EHR and patient notes are subsequently sent to the referring provider for seamless care team coordination. Multiple clinic sites associated with SOS are also able to request and

review previous CPS visits via the EHR.

- **Norwegian American Hospital (NAH) (Chicago, IL)** has a Diabetes Education Center (DEC) staffed by a Nurse Certified Diabetes Educator (CDE) and Clinical Dietitian. Our PoF is high risk patients with Diabetes, and it was decided that, instead of duplicating efforts, the clinical pharmacist would become a member of the education team in the DEC. The pharmacist would be responsible for the medication component of the Diabetes Self-Management Education/Training (DSME) Program.

## **H. Develop a delivery system with an established primary health care home and linkages with other providers and settings.**

- H1. Help patients to identify a primary health care home and agree about the place of central access (i.e., mental health center, FQHC, rural health center, HIV/AIDS clinic, women's healthcare clinic, or a private medical practice).
- H2. Educate patients about the importance of identifying and establishing a primary health care home and how such goals can be achieved, so that they become advocates of the primary health care home concept (i.e., request that other specialists or providers coordinate any changes in their treatment plan with their regular provider).
- H3. Educate patients on the importance of coordination and communication with their primary health care home regarding visits to other providers (e.g., urgent care visit, emergency room visit, referrals).
- H4. Establish care teams and ensure that all members of the team share the same understanding of their roles within the primary health care home.<sup>70</sup>
- H5. Once the patient has identified a provider, make sure that the provider or a member of provider's team (i.e., another physician, a nurse, social worker, pharmacist) is accessible and available (i.e., utilize open access scheduling model which assures the availability to provider and to the team).<sup>7</sup>
- H6. Seek to ensure that patients see the same provider each time they have a visit and that the provider is the key point of contact at admission, discharge, hospitalization, and care coordination with other facilities (i.e., specialty care clinic, dentist, mental health facility, county hospital, pharmacy).<sup>72</sup>
- H7. Ensure that patients are seeing their primary care provider regularly while receiving medication management services from a pharmacist.<sup>73</sup>
- H8. Establish a source of accurate patient information that is available to all persons involved in the primary health care of an individual (i.e., enable shared access to information for other team members, including agreement between the patient and provider and the individualized care plan for preventive, acute, and episodic care).<sup>74</sup>
- H9. Hold regular team meetings to discuss patients that received consultation from pharmacy, medical care, substance abuse, mental health, oral health care and other relevant perspectives.<sup>75</sup>
- H10. Build trust and collaboration with other care settings in the community to enable effective hand offs.<sup>76</sup>
- H11. Strive to establish a primary health care home and a pharmacy home that is based on the following key elements:
- Coordinated and tracked services;
  - Integrated healthcare information across providers and settings (i.e., through the use of technology);
  - Presence of electronic plan of care that is developed in coordination with the patient, practitioner, and vendor;
  - Availability and access to psychosocial, behavioral, and caregiver support;
  - Availability of care during after-work hours;
  - Central location where patients see their provider, where their charts and records are available, and care protocols are followed.

## Putting the “Action” into action items

- **Medication Education Team (MET) (Dover, NJ)** has the clinical pharmacist as a member of the care team and has full access to the EMR and other patient information. She communicates regularly with the 340B pharmacy partners and other pharmacies on behalf of the patient, and sits on the QA and P&T committees. Coordinated and co-located visits have been successful in engaging patients living with AIDS/HIV and helping them improve health and safety outcomes. The physician, case manager and pharmacist have a conference on every patient to clarify treatment goals and identify barriers and behaviors that may affect care. In the near future, we will schedule shared medical appointments (SMA) for patients with diabetes.
- **Jefferson County Collaborative (Birmingham, AL)** has outside providers referring new patients into JCDH clinics for diabetes education based on their patient conversations with other providers, and how successful patients are with their own care at the JCDH diabetes clinic.
- **Primary Care Coalition of Montgomery County (Silver Spring, MD)** awarded the Communities IMPACT Diabetes Center Legacy Grant to develop a project entitled: “Integrating Self-Management Education and Clinical Pharmacy Services into Community-Based Primary Care for Low-Income, Uninsured Latino Patients with Diabetes.”. Team has identified 4 diabetes related services at the health care home (Mercy Health Clinic) including nutrition, group diabetes education, individual diabetes education, and MTM to incorporate into a referral protocol to streamline the services. The team has also identified specific criteria that patients must have to be referred to the aforementioned services.

### I. **Coordinate care transitions among providers and settings, with medication reconciliation at each care transition.<sup>b</sup>**

- I1. Create a seamless process of medication management as patient transitions across care settings within or across organizations<sup>77</sup> (e.g., include clinical pharmacist at admission and discharge;<sup>78</sup> perform medication reconciliation upon admission and discharge; work with a hospitalist or a nurse who serves as a sole point of contact for admission, care management, and discharge at the local hospital;<sup>79</sup> hire clinic providers who are credentialed to practice in the local hospital; utilize a discharge pharmacist;<sup>80</sup> contact high-risk patients (e.g., patients on anti-coagulation drugs)<sup>81</sup> by phone within 24 to 48 hours after hospital discharge.
- I2. Establish clear methods of communication among providers within and across settings<sup>82</sup> (share an EMR system and generate reports on newly discharged patients),<sup>83</sup> integrate inpatient and outpatient medical records;<sup>84</sup> provide data access to/from various settings of your organization (i.e., hospital and ambulatory);<sup>85</sup> share data among hospitals, clinics, and pharmacies to improve the continuity of care; practice e-prescribing).<sup>86</sup>
- I3. Reconcile patient medication lists at each visit and at care transitions,<sup>87</sup> including asking patients about over-the-counter medications and herbal supplements.<sup>88</sup>
- I4. Reconcile medications for all new patients (e.g., new patient clinic;<sup>89</sup> calls to patients prior to first visit;<sup>90</sup> use patient wait time for initial provider visit to review medications<sup>91</sup>).
- I5. Provide patients with a medication reconciliation form that includes an updated medication list, and teach them to bring their medication reconciliation form to each visit.<sup>92</sup>
- I6. Involve pharmacists, physicians, nurses, and patients in medication reconciliation,<sup>93</sup> and incorporate the medication reconciliation form into the physician order form.<sup>94</sup>
- I7. Use a consistent and agreed-upon medication reconciliation form across all providers and units of the organization, including emergency room admission.<sup>95</sup>

18. Provide patients with their list of current, over-the-counter, and discontinued medications at the entry and exit of each visit and educate them about those medications.<sup>96</sup>
19. Ask patients to bring to each visit all medications that they are taking in original bottles, including over-the-counter medications, herbals, and supplements; include this request in an appointment reminder call and an appointment card, and reinforce this request at each visit.<sup>97</sup>

### *Putting the “Action” into action items*

- **Family Health Pharmacy (Greenville, OH)** works closely with the hospital nurse and the hospital case manager to receive referrals of high risk patients needing medication reconciliation and help understanding their medication.
- **Share Our Selves (Costa Mesa, CA)** is piloting a transition of care program where specific high risk hospital discharge patients are provided with a CPS drug reconciliation service. Patients are evaluated via an established protocol for the need of a CPS phone call or an in-person appointment with the clinical pharmacist. A medication reconciliation of all OTC, nutraceuticals, and prescription medications is performed and documented. Recommendations are sent via EHR to providers and, when appropriate, patients are enrolled in Patient Assistance Programs. An accurate, accessible, and comprehensive list of all current medications is reconciled in the EHR and provided to the patient.
- **Primary Care Coalition of Montgomery County (Silver Spring, MD)** used pharmacists to develop an integrated inter-professional care team, including clinical pharmacy services as well as coordinating care transitions among providers to optimize patient care and health outcomes. Pharmacists met with the Medical Director and the CEO of the Health Care Home (Mercy Clinic) to discuss plan for referral and scheduling process. Pharmacists also delivered an in-service for nurses to discuss the implementation of CPS and patients’ referral/schedule. Pharmacists then provided the feedback for medical director and nurses. With support from the inter-professional care team, there has been increasing in number of patients referred and scheduled for medication therapy management and diabetes training session. Pharmacists’ time and resources have also been utilized appropriately.
- **Health Partners of Western Ohio (Lima, OH; New Carlisle, OH)** educated all support staff (MAs, LPNs, RNs) and providers about a universal way of performing medication reconciliation in their electronic health record in an effort to educate and implement a universal approach for medication reconciliation among support staff at the health center. Clinical pharmacist developed verbiage for the HPI portion of an existing template that the support staff would utilize. A nurse used the template within a select number of visits to ensure that it worked well for its purpose with no problems. Clinical pharmacist used the said template and found no problems with documentation. Pharmacy director was shown the template and it was agreed that it would be sufficient to show that medication reconciliation was done within EVERY visit. Support staff at a smaller site were individually trained on how to incorporate and use the said template within EVERY visit. The support staff at the main health center were then trained in a group session on the same thing. Date was set to initiate the new universal way of performing medication reconciliation, giving time to build the correct template and inform the providers of the new processes.
- **University of Mississippi Delta Pharmacy Partnership (University, MS)** has pharmacy students call every pharmacy that a patient might use to get an updated medication list to compare to the medication bottles that they remind patients to bring to their visits. Once an accurate list is compiled, they give a medication reconciliation form to the patient. The team has also recently been trained on the clinic’s EHR (NextGen) to update the medication reconciliation form for all providers to access.

## Tools & Resources

Improving Communication--Improving Care Consensus Report (AMA)

[http://www.ama-assn.org/ama1/pub/upload/mm/369/ef\\_imp\\_comm.pdf](http://www.ama-assn.org/ama1/pub/upload/mm/369/ef_imp_comm.pdf)

Addressing Medication Errors in Hospitals: A Practical Toolkit (California Healthcare Foundation)

<http://www.chcf.org/publications/2001/07/addressing-medication-errors-in-hospitals-a-practical-toolkit>

ASSESS-ERR Medication System Worksheet (ISMP) <http://www.ismp.org/Tools/AssessERR.pdf>

Guidelines for improving patient safety communication (AMA)

<http://www.ama-assn.org/resources/doc/cqi/patient-safety-communication.pdf>

Strategies To Improve Communication Between Pharmacy Staff and Patients: Training Program for Pharmacy Staff (AHRQ) <http://ahrq.hhs.gov/qual/pharmlit/pharmtrain.htm>

## SAFE MEDICATION USE SYSTEMS:

Develop and operate by safe medication-use practices

### **J. Systematically introduce and institutionalize safe medication-use practices and monitoring procedures.**

- J1. Eliminate the practice of providing free samples,<sup>98</sup> or establish a strict set of guidelines for acceptance and monitoring of samples based on a rational formula for the organization.<sup>99</sup>
- J2. Require double-checking, especially during the times when pharmacist is unavailable (e.g., develop and utilize policies requiring two nurses to verify the right drug when nurses access medication storage).<sup>100</sup>
- J3. Write notes in a standardized way based on locally developed guidelines shared among providers; for example, list “do not use” abbreviations on the medication form.<sup>101</sup>
- J4. Store medications in a standardized manner within a system of multiple pharmacies.<sup>102</sup>
- J5. Develop protocols to ensure that the right patient is getting the right medication at the right time (e.g., see-through bag; use of scanning technology; purpose of prescription indicated on each label; use of two point identifiers and verification of patient’s name and date of birth at every encounter).<sup>103</sup>
- J6. Facilitate patient access to prescriptions by using strategies that ensure prescription pick-up (e.g., home delivery, mail service, dispensing window at a clinic without a pharmacy; partnerships with community pharmacies).<sup>104</sup>
- J6. Facilitate patient access to prescriptions by using strategies that ensure prescription pick-up (e.g., home delivery, mail service, dispensing window at a clinic without a pharmacy; partnerships with community pharmacies).<sup>105</sup>
- J7. Practice an 18-month rule for review of drugs by a Pharmacy and Therapeutics (P&T) committee to make sure that the new drugs are safe (i.e., have been on the market long enough and interactions are well known).<sup>106</sup>
- J8. Assess the appropriateness of medication for the elderly using the BEERS criteria.<sup>107</sup>
- J9. Do not use medication abbreviations or verbal orders.<sup>108</sup>
- J10. Store look-alike/sound-alike medications separately (e.g., with clearly labeled and color-coded medication bins, by medication class, and using “Tall man-short man” lettering techniques in labeling).<sup>109</sup>
- J11. Use safety practices, such as the following, for high-alert drugs:
  - Have available only one strength of heparin for flushing IVs.<sup>110</sup>

- Have a pharmacist review every medication order before it is dispensed to the patient.<sup>111</sup>
- Remove all but one concentrated electrolyte (leave in calcium gluconate).<sup>112</sup>
- Require a pharmacist to mix concentrated electrolytes.<sup>113</sup>
- Provide pre-mixed IV bags or develop IV bag mixing kits.<sup>114</sup>
- Develop high-risk drug nursing information sheets for ER and inpatient units.<sup>115</sup>
- Identify high-alert drugs, using colorful labels and clearly printed names on containers.<sup>116</sup>
- Require double-checking of all insulin and pediatric doses at all times.<sup>117</sup>

### *Putting the “Action” into action items*

- **RPh4BO (Pharmacists for Better Outcomes) (Great Falls, MT)** has completed a special sign-out sheet for warfarin similar to a narcotic sign out sheet. This has improved their dosing compliance, both in the area of duplication and omission of warfarin.
- **The Polyclinic ACC (Seattle WA)** implemented Dr. Steve Chen’s paper tool to track pADEs in the anticoagulation clinic. All five providers fill out the paper forms for a portion of the population and send them to the quality coordinator to be entered onto an Excel spreadsheet. At the end of the month, the information is sorted by drug, indication, intervention, medication-related problem, recommendation, etc. and patterns are identified. New PDSAs are planned based on the data collected in order to decrease the amount of pADEs and improve patient outcomes.
- **Family Health Pharmacy (Greenville, OH)** uses Pharmacy Quality Commitment software to track pharmacy errors and uses this data to target weak spots in our work flow and our scheduling.
- **Family Health Pharmacy (Greenville, OH)** is working with an area home health agency to display their automated medication dispensers for patients to use in their home if compliance is a problem.
- **Jefferson County Collaborative (Birmingham, AL)** uses iPads to electronically submit medication safety and clinical pharmacy services data while on the floor during patient care activities.
- **Jefferson County Collaborative (Birmingham, AL)** using the form provided by Steve Chen and Google Docs, a database was built to sort and query information. The database is presented as an online survey. The user fills it out and that automatically advances them onto the next section to be completed.
- **El Centro and Partners (Española, NM)** successfully piloted clinical guidelines developed by the New Mexico Prescription Improvement Coalition (NMPIC) for Medications to be Used with Caution in Older Adults, and were able to champion the statewide use of this tool leading to improvement shown by a decrease in the prescription rate of drugs to be avoided in the elderly by 2.4% and decreased use of potentially inappropriate medications for the elderly population by 5.3%.

## **K. Establish on-site clinical pharmacy services.<sup>1</sup>**

- K1. Establish clinical pharmacy services slowly, and allow them to evolve as a process with increasing levels of pharmacist responsibility (e.g., discussing the process with a team in advance, demonstrating value by showing cost savings on medications for the patients, using innovative strategies to get physician buy-in such as being a resource for medication-related information,<sup>118</sup> conducting rounds with physicians on their patients to establish rapport and trust,<sup>119</sup> offering to address the needs of the most complex patients).<sup>120</sup>

- K2. Implement clinical pharmacy services by initiating a pilot, collecting and tracking outcomes data from the onset, and using those data to convince the team of the pharmacist’s benefit to the patient and to the practice.<sup>121</sup>
- K3. Integrate the pharmacist as an equal member of clinical teams (e.g., co-locate pharmacists in the clinical area, involve the pharmacist in patient safety and quality improvement initiatives).<sup>122</sup>
- K4. Explore a variety of sources for developing a clinical pharmacy service and recruiting trained clinical pharmacists (e.g., Colleges of Pharmacy, VA, and Kaiser systems;<sup>123</sup> pharmacy programs at the local universities to provide technical assistance and educational classes;<sup>124</sup> and pharmacy students and residents being included in rural provider recruitment and retention strategies<sup>125</sup>).
- K5. Actively involve the pharmacist as an integral part of the health care delivery team by including clinical pharmacy services in chronic care management (e.g., if state regulations allow, permit the pharmacist to make therapeutic changes in medication regimen or dose; use protocols to enable the pharmacist to adjust medications such as insulin or Coumadin.<sup>126</sup>
- K6. Identify high-risk patients and target clinical pharmacy services to address their complex needs (e.g., new patients, patients on anti-coagulation therapy, patients with multiple co-morbidities, polypharmacy patients, patients with disabilities, and patients with HIV/AIDS).<sup>127</sup>
- K7. Encourage clinical pharmacists to provide peer-to-peer education on medications, disease management, and new guidelines and regulatory requirements to other providers in person or through newsletters and education seminars, especially on new and high-alert medications.<sup>128</sup>
- K8. Provide all eligible patients with access to formulary and 340B drugs for cost savings.<sup>129</sup>
- K9. Provide pharmacists sufficient time with new patients to discuss medication management; allow the pharmacist to modify drug regimen to find a suitable formulary alternative for the patients and develop protocols to inform prescribers of the changes.<sup>130</sup>
- K10. Identify a physician champion and get physician buy-in early so that physicians are comfortable delegating responsibility to the pharmacist and accepting the pharmacist as part of the clinical care team.<sup>131</sup>
- K11. Provide the clinical pharmacist with access to medical records to profile all patients, lab values, and standard mode of communication with the rest of the team.<sup>132</sup>
- K12. Utilize pharmacist expertise in providing patient education and counseling in the management of chronic illness (e.g., diabetes, hypertension, asthma, anticoagulation, pain).<sup>133</sup>

***Putting the “Action” into action items***

- **RPh4BO (Pharmacists for Better Outcomes) (Great Falls, MT)** is initiating a renal dosing check service at the dispensing level to allow for a dose correction at the time of dispensing. The Dispensing Pharmacist now has access to the patient’s height, weight and serum creatinine to make the appropriate calculation and dosing recommendation. In the future we are hoping to make this a collaborative practice with the pharmacist making the dosing change rather than recommendation to the prescriber.
- **Medication Education Team (MET) (Dover, NJ)** has the pharmacist review chronic disease management with the patients, identifies barriers and behaviors that may adversely impact outcomes and uses adherence sheets and other tools to help patients understand their condition and how to manage their medication. The pharmacist and CMO review ADEs and pADEs on a regular basis, and findings are presented at the QA and P&T committee meetings. These activities have helped eliminate the “oops” in patient care.

**L. Implement pharmacy services and safe medication practices in the absence of an on-site pharmacist.**

If access to a clinical pharmacist is not a feasible option for your organization, consider alternative

strategies:

- L1. Establish or join existing telepharmacy networks to obtain access to a pharmacist who will review medication orders and provide consultation on medications.<sup>134</sup>
- L2. Partner with a community pharmacy that provides clinical pharmacy services.<sup>135</sup>
- L3. Designate a dedicated nurse specializing in patient education and counseling that can focus on medication needs of high-risk patients.<sup>136</sup>

### **Tools & Resources**

Pharmacy Safety and Service: What You Should Expect (NPSF)

<http://www.npsf.org/for-patients-consumers/tools-and-resources-for-patients-and-consumers/pharmacy-safety-consumer-fact-sheet/>

ASHP Guidelines on Pharmacist-Conducted Patient Education and Counseling (ASHP)

<http://www.ashp.org/DocLibrary/BestPractices/OrgGdIPtEduc.aspx>

Automated Telephone Reminders: A Tool to Help Refill Medicines On Time (AHRQ)

<http://www.ahrq.gov/qual/callscrip.htm>

Discharge Counseling and Medication Reconciliation (High Performance Pharmacy)

[http://www.highperformancepharmacy.com/8dimensions-Patient\\_care\\_services-Discharge\\_counseling\\_and\\_medication\\_reconciliation.php](http://www.highperformancepharmacy.com/8dimensions-Patient_care_services-Discharge_counseling_and_medication_reconciliation.php)

Unit-dose distribution system (High Performance Pharmacy)

[http://www.highperformancepharmacy.com/8dimensions-Medication\\_preparation\\_and\\_delivery-Unit-dose\\_distribution\\_system.php](http://www.highperformancepharmacy.com/8dimensions-Medication_preparation_and_delivery-Unit-dose_distribution_system.php)

Appropriate Label components and quality (High Performance Pharmacy)

[http://www.highperformancepharmacy.com/8dimensions-Medication\\_preparation\\_and\\_delivery-Appropriate\\_label\\_components\\_and\\_quality.php](http://www.highperformancepharmacy.com/8dimensions-Medication_preparation_and_delivery-Appropriate_label_components_and_quality.php)

Alternatives for Potentially Inappropriate Medication (PIM) in Older Adults

[http://www.nmmra.org/providers/drug\\_safety\\_pims\\_guideline5.php](http://www.nmmra.org/providers/drug_safety_pims_guideline5.php)

## **PATIENT-CENTERED CARE:**

Build a patient-centered medication-use system

### **M. Engage patients and families in achieving safe care and optimal health outcomes.**

- M1. Use techniques to ensure that patient education is effective (e.g., after explanation, ask patient to demonstrate the use of medications and equipment).<sup>137</sup>
- M2. Directly involve patients in organizational structure and management to provide input on medication use and safety within the organization (e.g., provide opportunity for patients to speak at Board of Directors meetings, a patient seat on the patient safety committee, or patient advisory group).<sup>138</sup>
- M3. Use visual educational materials (e.g., posters, brochures) illustrating the effects of specific behaviors on health outcomes (e.g., smoking on diabetes) and discuss their meaning and implications with patients.<sup>139</sup>
- M4. Encourage patient access and input into their health records by providing medical records at each encounter to promote patient participation in their care and to obtain the most accurate medical history.<sup>140</sup>
- M5. Engage the community and build trust with your patient population (e.g., organize or participate in community outreach activities such as health fairs, brown bag seminars, and wellness education forums; conduct seminars on chronic disease management; participate in “brown bag” days to review medications; and include community members on advisory committees).<sup>141</sup>

- M6. Practice a patient-provider relationship that places patients in the center of decision-making, is based on an equal partnership, and *helps* patients find solutions (e.g., treat every patient with respect, ask effective questions that involve motivational interviewing techniques, such as “how many pills did you miss this week?” spend adequate visit time, and maintain direct eye contact with the patient).<sup>142</sup>
- M7. Counsel every patient on each filled medication, related outcomes, side effects, and proper administration.<sup>143</sup>
- M8. If electronic medical records are in place, embed patient-education tools and materials in electronic medical systems so that they can be generated automatically and handed out and reviewed with patients when they receive a prescription.<sup>144</sup>

### *Putting the “Action” into action items*

- The **University of Colorado School of Pharmacy and Denver Health Eastside Clinic (Denver, CO)** intervenes on their PoF via telephone. The team determined that outreaching to patients with diabetes via telephone avoided many issues associated with in-person visits, including transportation arrangements and costs, copays, and scheduling around other commitments, which are often barriers for their patients that prevent them from attending visits onsite. The site has found that using telephone management allows them to contact patients when it is convenient for them (including some evenings and weekends) which allows them to be more engaged in their care.
- **The Polyclinic ACC (Seattle WA)** created a self-assessment for patients on warfarin. The patients are given the one-page questionnaire in the waiting room and they check off all the items that they understand. The provider then reviews the rest with the patient to make sure they are able to self-manage their warfarin medication when they leave the office. The assessment is given at the 2nd visit and every 3 months.
- **Family Health Pharmacy (Greenville, OH)** has spent time in the pharmacy waiting area to ask patients “What do you need from me (or the facility)?”
- **Jefferson County Collaborative (Birmingham, AL)** developed a multi-session group diabetes education course to enable peer interactions to assist with disease and treatment understanding to encourage disease control.
- **Jefferson County Collaborative (Birmingham, AL)** created a patient education book for patients attending the Diabetes Clinic which more closely aligned with the visit protocols.
- The **EVMS (Norfolk, VA)** team’s Nurse Educator used a PDSA to develop documentation on each patient’s health literacy. All patients were subsequently tested for reading levels and a discrete chart label was developed to communicate to all providers each patient’s reading level (0-12th grade) and labels were affixed to charts – much like allergy warnings. These assessments are also used for referral to FDA’s Office of Women’s Health publications.

### **N. Establish patient self-management as a practice that is tracked and improved over time.**

- N1. Develop, regularly administer, analyze, benchmark, and respond to comprehensive patient satisfaction surveys that address both the quality of access and communication with staff and patient-specific providers. (El Rio Health Centers).<sup>145</sup>
- N2. *Assess patients’ cognitive function, literacy level, and ability to self-manage medications (e.g., by utilizing cognitive functioning assessment tools such as clock draw and Vulnerable Elderly Survey) and tailor your communication with the patients in a way that meets their level of functioning.*<sup>146</sup>
- N3. *Use reminder systems for medication adherence (e.g., key chain reminders, pill boxes, reminder stickers on calendars and routinely used items).*<sup>147</sup>
- N4. Adopt creative approaches to patient-centered care, for example, by putting in place group visits,

allocating adequate length of time for 1:1 visits, and scheduling clinic days specifically focusing on disease management and/or medication safety.<sup>148</sup>

- N5. Practice creative ways to help patients with disabilities and limited health literacy to differentiate medications (e.g., use plastic bags for one type of medication and paper bags for another; use color-coded and clearly labeled stickers with easy-to-understand symbols; develop medication guides for less literate patients with disabilities, using pictures of common symbols to associate different pills with certain times of the day); establish a medication schedule based on the patient's daily schedule (e.g., taking into account when they go to bed).<sup>149</sup>
- N6. Ask about patient falls at each visit for geriatric patients.<sup>150</sup>
- N7. Ensure that patients manage their medications and equipment correctly by establishing discharge pharmacy services or by conducting phone calls or home visits following the discharge from the hospital, when patients seem to have difficulty in managing the medications, when their outcomes are not improving as expected, or when making medication changes.<sup>151</sup>
- N8. Use patient activation tools (e.g., personal wallet-sized cards listing a patient's current medications and allergies, pill boxes, photo novellas, group visits).<sup>152</sup>

### *Putting the "Action" into action items*

- **Mission OP Anticoagulation Clinic (Asheville, NC)** conducts regular patient satisfaction surveys and reviews the analyzed results closely. Changes are made based on patient comments and feedback. Survey scores consistently show a patient satisfaction rate >99% who indicate the clinic either meets or exceeds expectations.
- **The Polyclinic ACC (Seattle WA)**, to include the "patient voice," the team decided to seek out a patient who was willing to partner with them and give them feedback about new processes. The patient receives monthly updates and is encouraged to share her experience. Almost all ideas are presented to her first before they are implemented.
- **Share Our Selves (Costa Mesa, CA)** uses patient activation tools (cards, lists, pill boxes, handouts, and videos) at CPS encounters. Patients receive a self-management card at each encounter. This card has pictures and words describing at least 10 self-management categories. The patient's goals and action plan are recorded on the card and given to the patient to review at home, share with family, and keep as a log.

## **O. Provide culturally appropriate services by developing the understanding and competencies that providers need to engage their patients.**

### **Organizational level:**

- O1. Adapt the method of care delivery to the population of service (provide services in the evening and on weekends, speak the patient's language or provide translation services for the languages spoken, offer services for other needs that are essential to the patient's overall well-being, such as counseling, mental health services, and housing).<sup>153</sup>
- O2. Incorporate programs that improve patient access to care (e.g., an "advanced access" or open scheduling programs that allow for same-day appointments, extended hours during evenings and weekends, group visits).<sup>154</sup>
- O3. Provide community brown bag seminars on medication safety and chronic disease management.<sup>155</sup>
- O4. Involve patient advocates, peer educators, case managers, outreach staff, or social workers in care delivery <sup>156</sup> (e.g., provide cultural sensitivity training opportunities).<sup>157</sup>
- O5. Use tools and strategies to improve cultural competencies of organizations (e.g., welcoming

- environment, reminder systems, translation services, culturally appropriate educational materials).<sup>158</sup>
- O6. Establish protocols dealing with no-show appointments and follow-up (i.e., phone calls, letters, home visits).<sup>159</sup>
  - O7. Use patient assistance and similar (Medicaid, ADAP, Ryan White, Medicare part D) programs, and designate trained staff (i.e., pharmacy technicians) and time to determine eligibility, track, and assist patients with the application process.<sup>160</sup>

### Provider level:

- O8. Make an effort to understand the patient population, including their cultural beliefs, practices, stigmas, and myths; and incorporate that knowledge in care delivery (e.g., build a general rapport with the patient before discussing medical care needs; seek to understand the patients' stories and why they are sick;<sup>161</sup> ask about alternative medical treatments they use;<sup>162</sup> address health behaviors, such as diet and exercise, and cultural myths and stigmas).<sup>163</sup>
- O9. Require training to improve cultural competencies of all providers and staff that interact with patients.<sup>164</sup>
- O10. Elicit patient preferences and include family members and caregivers in review of medications and decision-making process during patient-provider interactions.<sup>165</sup>
- O11. **Assess and incorporate patient's medication-related beliefs and goals in the plan of care and treatment (e.g., patient's spirituality, healing practices, family considerations, and economic well-being).**<sup>166</sup>

### Putting the "Action" into action items

- **Mission OP Anticoagulation Clinic (Asheville, NC)** identified a cohort of patients with INRs persistently outside therapeutic range. The team conducted a root cause analysis based on retrospective medical record review. Results indicated the need to increase the focus on addressing patients' health literacy as a way to enhance engagement in their care in order to improve outcomes. The team is working with content matter experts in health literacy from the University of North Carolina at Chapel Hill.
- **Medication Education Team (MET) (Dover, NJ)** has the clinical pharmacist and health care team assess the patient's knowledge of their conditions, the level of health literacy, and cultural and socioeconomic barriers. An evidence-based curriculum is used that can be tailored to the patient and their condition. CPS is provided using a culturally-sensitive, individualized approach. Using simple language, the staff reviews medications and instructions, and using the "teach back" or "show me" method, the patient can demonstrate their level of comprehension. Open-ended questions allow the patient and family members to share concerns and get clarification. These techniques result in an "Activated" patient – a patient that is knowledgeable, empowered and engaged in self-management.

### Tools & Resources

Is Our Pharmacy Meeting Patients' Needs? A Pharmacy Health Literacy Assessment Tool User's Guide (AHRQ) <http://www.ahrq.gov/qual/pharmlit/>

Pharmacy Safety and Service: What You Should Expect (NPSF)

<http://www.npsf.org/for-patients-consumers/tools-and-resources-for-patients-and-consumers/pharmacy-safety-consumer-fact-sheet/>

Patient Medication Card (IHI) <http://www.ihl.org/knowledge/Pages/Tools/MedicationCard.aspx>

Your Role in Safe Medication Use: A Guide for Patients and Families (The Massachusetts Coalition for the Prevention of Medical Errors)

<http://www.ihp.org/knowledge/Pages/Publications/Yourroleinsafemedicationuse.aspx>

What You Can Do to Avoid Medication Errors Fact Sheet (IOM)

<http://www.iom.edu/CMS/3809/22526/35939/35945.aspx>

Check Your Medicines: Tips for Taking Medicines Safely (AHRQ)

<http://www.ahrq.gov/video/healthcolumns/medicines/medicines.htm>

Strategies to Improve Communication between Pharmacy Staff and Patients: A Training Program for Pharmacy Staff (AHRQ)

<http://www.ahrq.gov/qual/pharmlit/pharmtrain2.htm#overview>

Community Educational Seminars (High Performance Pharmacy)

<http://www.highperformancepharmacy.com/element.php?d=8&e=1>

## SUPPLEMENTS

### **Health Literacy and Cultural Competency**

*The purpose of this Change Package Supplement is to provide insights for community based teams and organizations who are interested in learning more from other PSPC teams on how they are addressing health literacy and cultural competency. This supplement was developed to help teams and not meant to be a comprehensive roadmap in how to address health literacy and cultural competency.*

#### Overview

##### ***What is Health Literacy and Cultural Competency?***

Health literacy and culture competency can significantly impact the relationship between the healthcare provider and patient. Health literacy is defined as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.<sup>1</sup> According to the National Assessment of Adult Literacy, 36 percent of U.S. adults have Basic or Below Basic Health Literacy (Kutner et al, 2006).<sup>2</sup> In other words, approximately 80 million Americans do not have the literacy skills needed to adequately discuss health issues and concerns with their healthcare providers and are also unable to understand and participate in preventative healthcare measures or follow necessary instructions for proper medication use.

Like health literacy, culture can impact the way patients understand and respond to information regarding their health. Cultural beliefs and practices can affect a patient's ability to follow provider instructions thus impacting the outcome of medical treatment and medication safety. Cultural competence is the ability of health organizations and practitioners to recognize the cultural beliefs, values, attitudes, traditions, language preferences, and health practices of diverse populations and to apply that knowledge to produce a positive health outcome.<sup>3</sup>

##### ***Why are Health Literacy and Cultural Competency Important to Clinical Pharmacy Services (CPS)?***

Recognizing and accommodating for differences in health literacy and culture can have significant, positive impact on individual patients' health and the healthcare system at large. By addressing patient health literacy and provider cultural competence, health care organizations can not only support better patient health outcomes, but also decrease healthcare costs.

*Impact on Health Outcomes* - According to the American Medical Association, health literacy is a

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<sup>1</sup> U.S. Department of Health and Human Services. 2000. *Healthy People 2010*. Washington, DC: U.S. Government Printing Office. Originally developed for Ratzan SC, Parker RM. 2000. Introduction. In *National Library of Medicine Current Bibliographies in Medicine: Health Literacy*. Selden CR, Zorn M, Ratzan SC, Parker RM, Editors. NLM Pub. No. CBM 2000-1. Bethesda, MD: National Institutes of Health, U.S. Department of Health and Human Services.

<sup>2</sup> National Center for Education Statistics. *The Health Literacy of America's Adults: Results from the 2003 National Assessment of Adult Literacy*. Washington, DC: U.S. Department of Education; 2006.

<sup>4</sup> Health literacy: report of the Council on Scientific Affairs. Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs, American Medical Association." *JAMA*. 281.6 (1999): 552-7. Web. 13 Sep. 2011. <<http://www.ncbi.nlm.nih.gov/pubmed/10022112>>.

“stronger predictor of a person’s health than age, income, employment status, education level and race”.<sup>4</sup> Low health literacy can have a negative impact on patient health outcomes. Research demonstrates that patients with low health literacy report poorer health status; are more likely to be hospitalized; and experience higher mortality rates ([Vernon et al, 2007](#)).<sup>5</sup>

*Cost Savings* - It is estimated that low health literacy alone costs the US healthcare system between 106 to 238 billion dollars a year, which represents 7 to 17 percent of all personal healthcare expenditures.<sup>6</sup> When a patient-provider relationship is affected by poor patient health literacy and inadequate cultural competence, added costs to the health care system can be expected. Patients are much more likely to misuse or fail to use medications and medical devices and utilize more doctor visits, emergency room trips and ambulatory care services. Costs and inefficient care for these health services will continue to rise among this patient population, if recognition and accommodations are not made by the provider, at the point of service.

## **How does this relate to the PSPC Change Package Strategies? Leadership Commitment and Health Literacy/Cultural Competency**

Establishing leadership support is essential for improving health literacy and cultural competency practices in primary care settings (Barrett et al, 2008).<sup>7</sup> Leadership must acknowledge the importance of these factors and commit to supporting the integration of health literacy and culture competency practices into all levels of services and policies.

### *Suggested Action items:*

- To help create an organizational culture with better patient health literacy and cultural competence, first assess your organization and identify areas for improvement.
  - Seek input through staff meetings, patient safety committees and community members.
  - Assess the quality, reading level, and cultural appropriateness of all written materials and translations.
- Establish protocol and procedures for translation services and literacy assessments.

## **Measurable Improvement and Health Literacy/Cultural Competency**

The PSPC Change Package stresses the importance of collecting, analyzing and disseminating data to guide improvements to CPS and track patient health outcomes. Similarly, qualitative and quantitative data on patient literacy levels and cultural beliefs should also be used to shape your clinical services and organizational policies.

### *Suggested Action Items:*

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<sup>4</sup> Health literacy: report of the Council on Scientific Affairs. Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs, American Medical Association." JAMA. 281.6 (1999): 552-7. Web. 13 Sep. 2011.  
<<http://www.ncbi.nlm.nih.gov/pubmed/10022112>>.

<sup>5</sup> Vernon, John A. "Low Health Literacy: Implications for National Health Policy." N.p., n.d. Web. 13 Sep 2011.  
<[http://www.npsf.org/askme3/download/UCONN\\_Health%20Literacy%20Report.pdf](http://www.npsf.org/askme3/download/UCONN_Health%20Literacy%20Report.pdf)>

<sup>6</sup> Vernon, John A. "Low Health Literacy: Implications for National Health Policy." N.p., n.d. Web. 13 Sep 2011.  
<[http://www.npsf.org/askme3/download/UCONN\\_Health%20Literacy%20Report.pdf](http://www.npsf.org/askme3/download/UCONN_Health%20Literacy%20Report.pdf)>

<sup>7</sup> Barrett, S.E., Puryear, J.S., and Westpheling, K. (2008). Health Literacy Practices in Primary Care Settings: Examples from the Field. The Commonwealth Fund ([Pub. No. 1093](#))

- Use surveys, evaluations, and focus groups to assess patient communication and cultural needs and staff attitudes.
- Use quick standardized tests to identify patients with low health literacy, such as:
  - Rapid Estimate of Adult Literacy in Medicine Test, Revised (REALM-SF) which consists of 7 words that the health care provider will ask the patient to read aloud and a score will be generated based on the patient performance.<sup>8</sup>
  - Newest Vital Sign (NVS) which consists of a nutrition label and a series of 6 questions pertaining to the label.<sup>9</sup>
  - Ask Me 3 program for health literacy,<sup>10</sup> The ability to answer the following three questions at each care visit has proven to support improved outcomes. The questions are:
    1. What is my main problem?
    2. What do I need to do?, and
    3. Why is it important for me to do this?
- Incorporate data on patient health literacy and cultural needs into medical records and share information across providers.

### **Integrated, Patient-Centered Care and Health Literacy/Cultural Competency**

Clear communication and cultural competency are essential components of patient-centered care. Health care teams must foster an environment of understanding and compassion for the needs of patients with diverse cultural and literacy needs. There are many practices for addressing health literacy and culture that can be integrated into your clinical services and organizational policies.

#### *Suggested Action Items:*

- Provide literacy and cultural competency training for both clinical and administrative staff including reception/ front desk. There are several free training courses (e.g. [HRSA Literacy Training](#))<sup>11</sup> listed in the resources section of this addendum.
- Use standardized communication tools like Teach Back, Motivational Interviewing or “Ask Me 3” (Barrett et al, 2008).<sup>12</sup>
- Use pictures, simple diagrams, and plain language for face-to-face communication and written materials (Barrett et al, 2008).<sup>13</sup> Easy-to-read written materials are available from the FDA Office of Women’s Health (see the resources section of this addendum).
- Use words and examples that are culturally relevant (<http://www.health.gov/communication/literacy/quickguide/healthinfo.htm>).
- Work with the patients to set and achieve goals. Ask patients to identify family members, caregivers, or others who are important to helping them achieve their goals.
- Engage patients in shared decision making.
- Utilize open-ended questions to elicit information, reflect or mirror patients’ comments and assess increased comprehension through teach back techniques.

<sup>8</sup> Health Literacy Measurement Tools. January 2009. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/populations/sahlsatool.htm>

<sup>9</sup> The Newest Vital Sign Assessment." HRSA.gov. Unified Health Communication, n.d. Web. 13 Sep 2011. <[http://pilot.train.hrsa.gov/uhc/pdf/module\\_02\\_job\\_aid\\_vital\\_sign.pdf](http://pilot.train.hrsa.gov/uhc/pdf/module_02_job_aid_vital_sign.pdf)>.

<sup>10</sup> Ask Me 3." npsf.org. National Patient Safety Foundation, n.d. Web. 13 Sep 2011. <<http://npsf.org/askme3/>>.

<sup>11</sup> Health Literacy." HRSA.gov. HRSA, n.d. Web. 13 Sep 2011. <<http://www.hrsa.gov/publichealth/healthliteracy/index.html>>.

<sup>12</sup> Barrett, S.E., Puryear, J.S., and Westpheling, K. (2008). Health Literacy Practices in Primary Care Settings: Examples from the Field. The Commonwealth Fund ([Pub. No. 1093](#))

<sup>13</sup> Barrett, S.E., Puryear, J.S., and Westpheling, K. (2008). Health Literacy Practices in Primary Care Settings: Examples from the Field. The Commonwealth Fund ([Pub. No. 1093](#))

- Work with patients to negotiate treatment plans which are respectful of the patient’s values, preferences, and care goals.
- Hire bilingual or multilingual employees and health care providers that have training and experience with the cultures and communities you serve. They may be able to help other staff understand and relate to patients’ needs.

***PSPC Communities in Action - two teams sharing their stories around health literacy and cultural competency***

**Sunrise Community Health/ Loveland Community Health Clinic**

Sunrise serves an ethnically and racially diverse diabetic patient population. Sunrise uses a number of strategies to meet the literacy and cultural needs and improve the health outcomes of the patients they serve.

- Bilingual front desk staff assist patients in completing Self Management Goal Sheets that are used to help patients play an active role in achieving their health goals.
- Informational posters are placed throughout the clinic to inform patients about the availability of easy-to-read health materials.
- Group classes on diabetes management and nutrition utilize plain language and culturally relevant examples to support diabetes care plan.

**M.E.D.S. Lakewood, NJ**

The PSPC team M.E.D.S consisting of Ocean Health Initiatives and three other NJ organizations provides a great example of utilization of the materials available from the FDA Woman’s Health website. The site first found a need for the resources during the H1N1 epidemic. Providers needed a way to disseminate information to their patient population who was largely Latino and Spanish-speaking. In their search for factual, distributable information the providers found the FDA Women’s Health website and discovered a wealth of information. From that point on the site uses the information for public notices and alerts. One example of valuable information available during the H1N1 outbreak was information pertaining to the risks and benefits of inoculating pregnant women.

As a community health care center and like many health care centers, funding for educational materials at Ocean Health Initiatives is limited. The information available from FDA Women’s Health is free and can be printed out and taken home with the patient. A great benefit of the materials is that they can all be printed in both English and Spanish. Also, many of the materials can be printed in Arabic, Polish and many Asian/Pacific Island languages. Working with the PSPC collaborative, providers at Ocean Health Initiatives provide many services in the education and self-management training for diabetes patients. On the FDA Women’s website, there are many tools available from insulin, medications, and meters packets to nutritional information. All of the materials online can be customized to the patient, which provides a great interactive learning tool. A very helpful tool Ocean Health Initiatives recommends is the medication reconciliation forms. The materials available are not only for women, at this particular site the materials were used initially in the OB department then to all women and now for all patients including men.

**Tools/Resources (Just some of the many tools/resources that exist):**

***Easy-to-Read Patient Education Materials***

- FDA Office of Women’s Health - <http://www.fda.gov/ForConsumers/ByAudience/ForWomen/FreePublications/ucm116718.htm>

- Medline Plus - [www.medlineplus.gov](http://www.medlineplus.gov)
- Healthy Roads Media - <http://healthyroadsmedia.org/>

### *Training*

- HRSA Health Literacy Training - <http://www.hrsa.gov/publichealth/healthliteracy/index.html>
- “Does My Patient Understand?” – FDA Office of Women’s Health/ PSPC  
<http://pssc.aphanet.org/trainingmodules/FADoesmypatientunderstand.htm>
- Health Literacy for Public Health Professionals (CDC Web-based Course)  
[http://www2a.cdc.gov/TCEOnline/registration/detailpage.asp?res\\_id=2074](http://www2a.cdc.gov/TCEOnline/registration/detailpage.asp?res_id=2074)
- NIH Plain Language Online Training  
<http://plainlanguage.nih.gov/CBTs/PlainLanguage/login.asp>
- Health Literacy & Public Health <http://www.hrsa.gov/publichealth/healthliteracy/index.html>
- New York New Jersey Public Health Training Center <http://www.nynj-phtc.org/>

### *Other Resources*

- National Action Plan to Improve Health Literacy-  
<http://www.health.gov/communication/HLActionPlan/>
- NIH Clear Communication Initiative - <http://www.nih.gov/clearcommunication>
- CDC Gateway to Health Communication - <http://www.cdc.gov/healthcommunication/index.html>
- AHRQ Health Literacy and Cultural Competency - <http://www.ahrq.gov/browse/hlitix.htm>
- Health Literacy Activities by State - <http://www.cdc.gov/healthliteracy/StateData/index.html>
- AMA – Help Patients Understand  
[-http://www.ama-assn.org/resources/doc/ama-foundation/hl\\_monograph.pdf](http://www.ama-assn.org/resources/doc/ama-foundation/hl_monograph.pdf)
- Ask Me 3 -<http://npsf.org/askme3/>
- More than Words Toolkit. Hablamos Juntos  
[http://hablamosjuntos.org/mtw/download/toolkit\\_download.asp](http://hablamosjuntos.org/mtw/download/toolkit_download.asp)
- The Joint Commission “Advancing Effective Communication, Cultural Competence, and Patient-and Family-Centered Care. A Roadmap for Hospitals”.  
<http://www.jointcommission.org/assets/1/6/ARoadmapforHospitalsfinalversion727.pdf>
- NCQA “Multicultural Healthcare: A Quality Improvement Guide”  
[http://www.ncqa.org/Portals/0/HEDISQM/CLAS/CLAS\\_toolkit.pdf](http://www.ncqa.org/Portals/0/HEDISQM/CLAS/CLAS_toolkit.pdf)
- Massachusetts General Hospital-Harvard Medical School and New York-Presbyterian Hospital-Weill Medical College “Cultural Competence in Health Care: Emerging Frameworks and Practical Approaches”. <http://www.azdhs.gov/bhs/pdf/culturalComp/cchc.pdf>

## **Accreditation**

*The purpose of this Change Package Supplement is to provide insights for community based teams and organizations who are interested in learning more from other PSPC teams who have achieved accreditation status. This supplement was developed to help teams and not meant to be a comprehensive roadmap in obtaining accreditation/certification. PSPC teams should consult with accrediting organizations for more details and information.*

## **Overview**

### **The Value of Accreditation**

Accreditation means to assure and improve higher quality, assisting institutions or programs using a set of standards developed by peers. An institution or program that has successfully completed an accreditation review has in place the needed instructional, support and other services to assist individuals to achieve their goals.<sup>14</sup>

All accrediting organizations create and use specific standards both to assure that institutions and programs meet threshold expectations of quality and to assure that they improve over time. These standards address key areas to improve outcomes and patient safety. All accrediting organizations use common practices, including a self-review by the institution or program against the standards, an on-site visit by an evaluation team of peer experts and a subsequent review and decision by the accrediting body about accredited status. This review is repeated every three to ten years if the institution or program is to sustain its accreditation.

Ultimately accreditation provides credibility that a third party has independently and objectively evaluated an institution or program to validate that the recognized program is achieving quality services.

### **The Benefits of Accreditation**

“Accredited status” means that individuals can expect that a program lives up to its promises. It means that an individual can have confidence that a credential has value. Accreditation signals that the public can have confidence in the worth of a program.

The Joint Commission outlines many benefits of accreditation that directly correlate with the goals of PSPC. Accreditation helps organize and strengthen patient safety efforts and strengthen community confidence in the quality and safety of care, treatment and services, as well as many other benefits to strengthen a healthcare organization.<sup>15</sup>

To the public, the accreditation process provides value not only through judging quality, but also assuring reliable information about institutions and programs, promoting accountability and identifying successful improvement efforts.

To the institution or program, accreditation may result in payers looking at an accredited facility more favorably resulting in a higher reimbursement rate. Having a certificate of accreditation is also a way for organizations to distinguish themselves as industry leaders who operate and comply with established and accepted national standards.

## **How does this relate to the PSPC Change Package Strategies?**

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<sup>14</sup> Value of Accreditation. Washington D.C.: , 2010. Web. <<http://www.acpe-accredit.org/pdf/ValueofAccreditation.pdf>>.

<sup>15</sup> Benefits of Accreditation. 2011. Web. <[http://www.jointcommission.org/assets/1/18/Benefits\\_of\\_Accreditation\\_8\\_23\\_11.pdf](http://www.jointcommission.org/assets/1/18/Benefits_of_Accreditation_8_23_11.pdf)>.

### **Accreditation and Leadership Commitment**

Leadership, commitment and the active involvement of management are essential tools for developing and maintaining an effective and efficient quality management system to achieve benefits associated with accreditation.<sup>16</sup>

#### *Suggested action items:*

- Assess the current status of an organization and realize needs for improvement based on standards established by accrediting bodies.
  - To gain a well-rounded view of how well services are being offered and received, consider surveying patients and providers.
  - Utilize error reporting data to identify opportunities for improvement.
- Once a standard is established with the goal of becoming accredited:
  - Inform all staff of the attainable goal and provide tools and reinforce consistent messages of expectations throughout the organization.
- Form partnerships that can lead to new accreditation status.
  - For example, adding a pharmacy residency program can lead to accreditation by ASHP/APhA.

The more partners a team gains, the more opportunities there are for multiple, diverse accreditations. Furthermore, once an accreditation status is set as a goal, forming advisory groups consisting of members of different partners can promote new ideas and ways to rapidly reach the goal.

### **Accreditation and Measurable Improvement:**

Collecting and utilizing data is heavily emphasized in PSPC and successful teams describe the benefits of using data in many areas including building a business case and seeking reimbursement. Moreover, it can also be essential for meeting standards for accreditation.

For example, the National Committee for Quality Assurance (NCQA) formed in 1991 in response to a demand for standardized, objective information about performance. Many consider NCQA to be the gold standard for evaluating healthcare and value.<sup>17</sup> The accreditation process includes not only evaluation of standards but also Healthcare Effectiveness Data and Information Set (HEDIS), which evaluates performance on process and outcomes in clinical care and member experience of care.<sup>18</sup> In order to apply for accreditation by NCQA, an organization must have documented and retrievable data.

#### *Suggested action items:*

- Develop a plan for capturing data on process improvements and patient-safety data.
- Establish systems to facilitate error reporting and identification.

An organization involved in PSPC will already have a data collection system in place, which could help complement the organizations' effort in applying for accreditation. Also, in addition to peer to peer learning already embedded in PSPC, an added benefit of submitting data to accrediting agencies is that it will allow an organization to compare data trends, success, and improvements to national standards.

### **Accreditation and Integrated Care Delivery:**

A core component of PSPC is integrated care delivery consisting of a multi-professional care team.

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<sup>16</sup> American Association of Integrative Medicine Accreditation Commission. 2011. Web. <<http://www.aaimedicine.com/accreditation/>>.

<sup>17</sup> Accreditation. Washington, D.C.: , 2011. Web. <<http://www.ncqa.org/tabid/66/Default.aspx>>.

<sup>18</sup> NCQA Health Plan Accreditation. Washington, D.C.: , 2011. Web. <<http://www.ncqa.org/Portals/0/Marketing/HPA%20Brochure%20Web.pdf>>.

Such collaboration can include professionals from physicians, pharmacists, and nurses to educators and nutritionists to administrators and CQI management. Healthcare organizations that build a collaborative with health care professionals can see advantages in terms of accreditation.

For example, a joint initiative of ACCME, ACPE, and ANNC has an accreditation entitled, “Accreditation of Continuing Education Planned by the Team for the Team.” This accreditation is appointed to organizations that provide continuing education credits for a healthcare team that participates in a framework for quality improvement by planning, offering and evaluating education for teams comprised of two or more healthcare professionals (e.g., nurses, pharmacists, and/or physicians).<sup>19</sup>

The Patient-Centered Medical Home (PCMH) is a model of care focused on organizing care around patients, working in teams and coordinating and tracking care.<sup>20</sup> Four primary care physician societies, the American Academy of Family Physicians (AAFP), the American Academy of Pediatrics (AAP), the American College of Physicians (ACP), and the American Osteopathic Association (AOA), formed the Joint Principles of the Patient-Centered Medical Home and established guidelines for recognition and accreditation programs. These guidelines can be found at:

<http://www.medicalhomeinfo.org/downloads/pdfs/Guidelines-PCMHRecogAccredPrograms.pdf>.

#### *Suggested Action Items:*

- The Patient-Centered Medical Home model has goals aligned with those of PSPC. Teams can use these guidelines to improve integrated care delivery and in effect reach new accreditation status.
- Create a standard protocol for collaborative practice agreements for clinical pharmacy services within and across organizations.
- Practice effective and appropriate referrals, and leverage provider time
- Promote internal collaborations to build teamwork among providers

#### **Accreditation and Safe Medication Use Systems:**

Implementing clinical pharmacy services has shown to have a positive effect on the management of chronic disease states. Medication reconciliation, medication therapy management, etc. provided by a pharmacist is one way to improve safe medication use; however, systematic changes are also necessary.

#### *Suggested action items:*

- Develop protocols to ensure that the right patient is getting the right medication at the right time
- Facilitate patient access to prescriptions by using strategies that ensure prescription pick-up
- Practice an 18-month rule for review of drugs by a P&T committee to make sure that the new drugs are safe

For example, Diabetes Self-Management Training (DSMT) is a possible accreditation that can be received from American Association of Diabetes Educators (AADE). Being awarded this accreditation represents that the organization is offering patients comprehensive, effective diabetes self-management education.<sup>21</sup>

Implementing and/or improving safe medication use systems can provide the obvious benefits of

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<sup>19</sup> Joint Accreditation for the Provider of Continuing Education for the Healthcare Team "Accreditation of Continuing Education Planned by the Team for the Team" A Joint Initiative of ACCME, ACPE, and ANCC. Silver Spring, MD:, 2011. Web. <<http://www.nursecredentialing.org/Accreditation/Joint-Accreditation-Program.aspx>>.

<sup>20</sup> Patient-Centered Medical Home. Washington, D.C. :, 2011. Web. <<http://www.ncqa.org/tabid/631/Default.aspx>>.

<sup>21</sup> AADE Diabetes Education Accreditation Program. Washington, D.C. :, 2011. Web. <<http://www.diabeteseducator.org/ProfessionalResources/accred/>>.

patient safety and decreased dispensing errors. However, financial incentives also exist. For instance, teams accredited with DSMT are able to obtain Medicare reimbursement for these services.

### **Accreditation and Patient-Centered Care:**

Patient-Centered Care is a cornerstone of PSPC and many national health organizations. This concept can also be a stand-out point when it comes to applying for new accreditation status. Showcasing patient-centered care in an organization can be challenging to document but the PSPC Change Package offers some ways to help teams. Examples listed in the PSPC Change Package include patient assessments and surveys.

#### *Suggested action items:*

- Use techniques to ensure that patient education is effective.
- Directly involve patients in organizational structure and management to provide input on medication use and safety within the organization.
- Encourage patient access and input into their health records by providing medical records at each encounter to promote patient participation in their care and to obtain the most accurate medical history.

One accrediting agency that makes patient-centered care a priority in approval or denial of accreditation status is the Accreditation Association for Ambulatory Health Care (AAAHC) - Medical Home Accreditation. AAAHC uses active medical professionals to perform an on-site accreditation survey and one of the points that the organization must show is a relationship with the patient.<sup>22</sup>

## **PSPC Communities in Action - four teams sharing their stories around accreditation/certification**

### **Health Partners of Western Ohio:**

Health Partners of Western Ohio (HPWO) is a federally qualified health center with two sites in the Ohio area. The services they provide include medical, dental, behavioral health, pharmacy, and social services.

HPWO is currently accredited by the Accreditation Association for Ambulatory Health Care (AAAHC) with an extended Medical Home designation. AAAHC's accreditation standards are based on measures that lead to high-quality patient care. HPWO's Postgraduate Year 1 (PGY1) Community Pharmacy Residency Program also has "Candidate status" for accreditation through ASHP and APhA, with the accreditation measuring factors that contribute to a residency program's training building upon what a resident has previously gained from an accredited pharmacy degree program. HPWO is additionally in the process of completing the application for the Level 3 Patient-Centered Medical Home (PCMH) Recognition from the NCQA. NCQA's PCMH standards focus on organizing care around patients, teamwork, and tracking and coordinating care over time.

HPWO sought out accreditation to help validate their processes through standards that other similar organizations were being held to. Additionally, HPWO wanted to achieve a high level of quality as an internal marker and they saw that accreditation could help achieve this goal. Another incentive is the possibility for higher reimbursement rates through accreditation.

PSPC has assisted in the accreditation process for HPWO in many ways. PSPC introduces clinical pharmacy services as well as step by step improvement methods to organizations and this helps as accreditations often require looking at quality improvement as a step by step process. For instance, AAAHC accreditation requires quality assurance initiatives on a scheduled basis. By working with PSPC,

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<sup>22</sup> Medical Home Accreditation. 2011. Web. <<http://www.aaahc.org/eweb/dynamicpage.aspx?webcode=mha>>.

HPWO was already in the mode for plan-do-study-act (PDSA) cycles as well as AAAHC's 10-step performance improvement process. PSPC 1.0 and 2.0 met two of HPWO's large quality improvement project goals for obtaining the AAAHC Medical Home designation.

Accreditation has provided many benefits to HPWO. It has demonstrated that a Federally Qualified Health organization can provide good standards of care to an underserved population. Its recognized accreditation has also raised HPWO's prominence within the community.

For other organizations seeking accreditations, HPWO feels there are several benefits that can be looked at for moving forward. Accreditation can improve the quality of an organization in new and different ways as accreditation forces organizations to really look at where they are currently based on specific standards. HPWO also hopes that higher reimbursements rates will eventually follow after accreditation. Some of the challenges that might be faced include the time investment required as well as the commitment to the goal of accreditation. Additionally, an organization may not have fine-tuned policies and procedures in place and the accreditation process can tighten up an organization's policies and procedures.

### **CommUnity Care:**

CommUnity Care is a nonprofit 501(c) (3) corporation providing primary care health services to the medically underserved. The medical offices are Federally Qualified Health Centers (FQHC) and are located in the greater Austin area.

The CommUnity Care PSPC team is accredited by the Joint Commission and in 2012 will be officially accredited in affiliation with a PGY2 ASHP Ambulatory Care Specialty Residency. Participating in PSPC helped prepare the organization for accreditation by increasing awareness of programs to help with this type of endeavor (peer to peer, etc.). Additionally, PSPC has supplied the team with more ideas in ways to expand services to other disease states.

The organization has many positive outcomes after receiving accreditation status. Regarding the ASHP PGY2 Residency accreditation, CommUnity Care has an increased collaboration with a college of pharmacy. The organization has also received additional funds from Peer to Peer to start a residency and for the University of Texas College of Pharmacy to take on the added responsibility. Moreover, with the added PGY2 longitudinal resident at the organization, CommUnity Care expects to expand clinical pharmacy services to a larger patient population.

### **El Rio Community Health Center:**

El Rio Community Health Center serves the greater Tuscan area and southern Arizona providing medical, dental and pharmacy services that are accessible and affordable to underserved populations.

El Rio Community Health Center currently has accreditation by the Joint Commission, Level 3 Patient-Centered Medical Home Recognition by NCQA and Diabetes Self-Medication Training (DSMT) by AADE. The organization leaders sought out accreditation primarily to become a model of excellence; and to be identified under best practice. Accreditation standards fit in well with the model of the organization. The organization also hoped to achieve higher reimbursement rates.

PSPC assisted in the road to accreditation in several ways. According to a clinical pharmacist at El Rio Community Health Center, Sandra Leal, "PSPC does a great job of reinforcing value of data and collecting information of providing clinical pharmacy services and integrating it into practice. All of these things are very much in line with what accrediting bodies want and so we are documenting outcomes that accrediting bodies are looking for. PSPC and these accrediting bodies are very much aligned."

A prominent benefit of accreditation at El Rio Community Health Center is the ability for a pharmacist to bill for clinical pharmacy services through diabetes education under DSMT. Before this accreditation, payers did not see pharmacists as a health care provider, and the organization did not bill for services performed by a pharmacist.

Some advice to PSPC teams considering to pursue a new accreditation status would be to understand what requirements are needed and the expectations required to achieve it. Important considerations are the

time commitment and the documentation requirements.

Teams should consider the benefits of accreditation. Becoming accredited gives a level of credibility for employees and patients. Recognition of high, quality care is often overlooked in FQHCs and Community Health Centers. Share your organization’s accreditation status with patients and the community, and do not forget to take advantage of opportunities for payer reimbursement, and/or increased reimbursement rates.

### **Siouxland Community Health Center:**

Siouxland Community Health Center (CHC) is a nonprofit organization located in Sioux City, Iowa with a desire to provide health care services that meet every need for their patients.

Siouxland CHC has attained accreditation from the Joint Commission. The Joint Commission’s accreditation standards look at specific areas of performance as well as the safe provision of patient care. Siouxland CHC had several reasons for seeking out accreditation including funding, higher reimbursement rates, recognition, and also to show that they had met qualifications to be recognized as a premier health center. Among the benefits that accreditation has provided, it has improved the organization’s safety and quality of care that they deliver as the organization had to match the standards of the accreditation. The work that the organization has completed with PSPC also serves as a reference to show the accrediting bodies a level of dedication to safety and improved care. However, organizations wishing to embark on the pursuit of accreditation should also be aware of the challenges. The process can be a lot of work and there can be a challenge with getting buy in from employees in that the extra work is worth the end result.

Siouxland CHC is additionally seeking NCQA PCMH Recognition in hopes that both their reimbursement rate will increase and to solidify their recognition in the community as a premier provider of care. In this process, PSPC has been providing data in addition to guidance.

### **Tools/Resources**

#### ***Example of accreditation programs include:***

#### **1. The Joint Commission**

- a. Ambulatory Health Care
- b. Behavioral Health Care
- c. Critical Access Hospitals
- d. Home Care
- e. Hospital
- f. Laboratory Services
- g. Long Term Care
- h. Office Based Services

#### **2. ASHP Residency Accreditation**

#### **3. Accreditation Association for Ambulatory Care**

#### **4. AADE Diabetes Education Accreditation Program**

#### **5. NCQA Patient-Centered Medical Home Accreditation**

- a. Accountable Care Organization (ACO)
- b. Health Plan Accreditation (HP)
- c. Wellness and Health Promotion (WHP)
- d. Managed Behavioral Healthcare Organization (MBHO)
- e. New Health Plans (NHP)
- f. Disease Management (DM)

# Building the Business Case and Value Proposition for Local PSPC Delivery Systems

*The purpose of this Change Package Supplement is to provide insights for community based teams and organizations who are interested in learning more about the financing associated with PSPC teams. This supplement was developed to help teams better understand how teams finance start-up, spread and growth with the ultimate goal of providing integrated medication management services to all of the patients who can benefit.*

## Overview

This supplement will focus on three areas; I. Establishing a 3 level construct for how teams finance their operations and growth; II. Identifying the need for a business case and the key elements of the business case and; III. Creating and using a “Value Proposition” to create a new relationship with payers. The last section of this document will focus on how this topic relates to the Change Package.

### **I. Moving through 3 Levels of Financing**

Once a community decides it wants to establish a PSPC team to deliver Clinical Pharmacy Services, it needs to assemble resources. Clinical Pharmacy Service is where an integrated care team consisting of providers, pharmacist, clinical and administrative staff work in concert to provide patient-centered care that optimizes the use of medication and promotes health, wellness, and disease prevention. CPS is now referred to as ***Integrated Medication Management (IMM)***.

A community partnership grows the IMM service delivery system to scale by moving through three levels of financing:

Level 1 - Start up with “resources at hand”

Level 2 - Expand using “readily available” resources.

Level 3 - Go to full scale on innovative payment agreements

The first level is driven by the leadership vision of the provider organizations. Local champions pull together internal resources at hand to make something happen quickly.

The second level brings in community partners to support expansion of a breakthrough in quality. Demonstrated success attracts partners with similar missions and visions. Partner resources enable some degree of expansion.

The third level is a disruptive innovation of the health care market. Demonstrations and pilots go to full scale operations, as the PSPC teams commit to deliver outcomes, as the payers agree to purchase a better product in a simpler way. To build a full scale delivery system the executive team will need to have a business case that shows it can work. To make the business case work, the PSPC team will need a value proposition that secures new payment agreements with major payers.

### **Level 1 - Start up with “resources at hand”**

Utilize the “resources at hand” of the organization(s) to launch quickly a PSPC team. The team is small, sufficient to deliver health

and safety to a Population of Focus (PoF) of manageable size. “Resources at hand” refer to dollars, staffing, equipment, space that are within the discretion of the executive team to deploy immediately.

Level 1 is a small rapid quality improvement effort to demonstrate results that can be delivered by installing the PSPC change package. Results from Level 1 are used create a case for seeking additional resources to serve additional populations of focus.

**Resources Sought:** Sufficient staff time to provide IMM to 50 – 100 patients.

**Results:** A delivery system prototype; improved health & safety for small PoF; organizational insight and experience.

**Collateral Results:** PoF report lower utilization of high costs services (ED; Inpatient); improved patient satisfaction; improved provider satisfaction.

### **Level 2 - Expand using “readily available” resources.**

Growth now comes from “readily available” resources within the partnership and the community. These resources take some effort to secure. They include new grant funding, allocation of surplus revenues derived from other programs, new payment sources for services. The use of “readily available” resources will almost always result in real growth, but at an incremental pace. This growth rate does not address the crisis nature and urgency of the high risk population’s situation. Over a 2-3 year effort, Level 2 effort will leave over half the high risk population without the necessary IMM. “Readily available” establishes the beachhead but will not solve the crisis.

**Resources Sought:** Additional staff time and administrative support to add several more populations of focus; information system support.

**Results:** Innovative delivery system model, improved health & safety for larger PoF; organizational experience and knowledge;

**Collateral Results:** Evidence that reduced utilization of high costs services is significant; improved patient satisfaction; increased provider buy-in; additional short term revenue to cover services; new relationships with funders.

### **Level 3 - Go to full scale on innovative payment agreements**

Growth in Level 3 requires significant sums of new capital to close the gap between those who are provided IMM and those that need IMM. The capital needed is start up investment, working capital for operations, and sufficient cash flow to sustain operations. These capital requirements can be captured in a price that the team offers payers.

As providers seek new capital, they are likely to find that the payer community is unable to create agreements that purchase both outcomes and quality. It is also likely that payers will not be able to make a new unique arrangement with an individual team. Payers will not be able to move easily or quickly from entrenched fee-for-service systems and traditional cost control practices.

To serve all patients who need IMM, the team has to present itself as a “Disruptive Innovation” in the market place. It will have to join with other teams to approach payers as large group and market force. As such they can make an offer that payers will see as strategic, significant and an offer they can’t refuse.

The in-state coalition of PSPC teams is moving the payment stream away from “Volume Purchasing” and towards “Value Purchasing.” The Alliance for Integrated Medical Management (AIMM) is calling statewide payer summits where the benefits of IMM can be showcased and the value case made for new purchasing agreements that cover integrated IMM.

**Resources Sought:** Stable cash flow from results-based payment arrangements; sufficient agreements with sufficient payers to provide IMM to all high risk patients.

**Results:** Innovative delivery system in place; improved health & safety for all high-risk patients; provider productivity and satisfaction as all time high

**Collateral Results:** Payer can now see reduced utilization of high costs services; improved patient satisfaction; evidence of reduced institutional re-admissions; sufficient revenue to cover services; well-developed business relationships with payers; a new “value-based” payment model.

To prepare for these conversations, PSPC teams that have achieved Gold and Gold Star status are encouraged to formally articulate their value proposition so they can present it to potential payers. To be able to build the delivery system that can deliver on the promise, the executive team will need a solid business case.

## ***II. Creating the Business Case – Build the delivery system that can deliver on the promise.***

Before they can commit to build a full scale PSPC delivery system the organization’s executives will have to have a business case showing that it is affordable and can deliver. The goal of the “Business Case” is to secure executive approval of an internal funding request or a proposed budget. The business case shows the cost and financial return, and the degree to which that return will exceed other uses of the resources being requested.

The “Business Case” for IMM is the Teams blueprint for the integrated delivery system as a financially viable enterprise within the organization. It describes:

- Mission relevance
- Who will be served and the outcomes expected
- The delivery system design that will produce the results
- Infrastructure and staffing that will have to be added
- All the costs to be incurred
- The financial viability

To create a business case, teams can progress through a seven step process.

### **Mission**

1. Identify the population to be served – What are the characteristics of the population? Is it disease specific? Where will we find the highest concentration of patients?

### **Outcomes**

2. Describe the high value outcomes to be achieved – What are the results that we intend to deliver? How will we demonstrate and track the results?
3. Identify the evaluation program that tracks commitments – How will we manage these patients to the best outcome? What systems need to be in place to track our progress?

### **Operations**

4. Describe the service delivery system that will produce the results – What types of interventions will we use and when and why will we use them? What do we do if the interventions do not work?
5. Know the cost structure – What are the costs associated to provide IMM services to a patient population? How do these costs change if we add/subtract patients?

### **Financial**

6. Establish the expected cash flow and financial viability – Given the costs, what cash will have to be generated, and what margin do we want to make on IMM services?
7. Show the payment arrangements in place with payers, and the payment arrangements that would have to be established.

There are many books written on the topic of developing a business case; including one featuring a PSPC faculty member. The book is entitled: *Building a Successful Ambulatory Care Practice; A Complete Guide for Pharmacists* by Mary Ann Kliethermes and Tim R. Brown.

In PSPC 5.0 special affinity groups and tracks will be established for CFOs and COOs to work on the “business cases” that underlie viable and effective PSPC delivery systems.

This work is necessary to build the operations and to set a price for negotiations with payers.

### **III. Creating the Value Proposition – Turning on the necessary cash flow**

Operation at full scale requires a stable revenue stream that currently does not exist. The PSPC teams will have to turn on new revenue sources. The goal of the “value proposition” is to convince the payers of health care to enter into purchasing agreements that cover IMM.

The “value proposition” articulates the outcomes a team promises for a particular patient population:

- Bring patients’ health status under control;
- Eliminate Potential Adverse Drug Events (pADE) and Adverse Drug Events (ADE);
- Deliver the outcomes for a period of time at a specific price.

The clinical team and executive officers should always have a price that they are willing to state and accept for the services regardless of the status of the business case. This price can be refined and recomputed over time as information gets better. A “Value Proposition” for a high risk patient population might sound like this:

*“For our high risk population, 7,500 need integrated medication management. We offer to serve them through a proven IMM Service system for an annual cost of \$700 per patient. After 12 months we will show at least 75% have their health status under control and are free of pADE and ADE. Without this arrangement 0% would have their health status under control, and 25% would be experiencing pADE and ADEs per visit.”*

This value proposition can be tailored to specific chronic conditions and crafted for different payers as necessary.

The Coalition of PSPC will show the payers how these outcomes will translate into true value for the payers. As a result of these outcomes the payers will see (1) higher service quality, (2) drops in utilization of high cost services, (3) less administrative cost. The payer will see net reductions in per patient service costs. With AIMM the state coalition of PSPC will propose ways that payers can track these financial results.

In PSPC 5.0 Gold and Gold Star teams will form an affinity group to craft powerful and compelling value propositions. Collectively the teams will bound the pricing that will work and how to establish measurement of value within the payer structure.

## **How does this relate to the PSPC Change Package Strategies?**

### **Leadership Commitment and the Business Case**

Leadership has to allocate limited resources to many different projects and priorities. To understand the value of PSPC, teams need to be able to speak about the results they can generate, the impact on the patients, their families and community as well as the financial impact on the providers and payers. Command of these topics will enable executives to make well informed decisions regarding PSPC and securing the necessary resources to launch and sustain the program.

*Suggested Action Items:*

- Enlist support from the finance/budget/accounting staff to assist in the development of the business case. Make this team an integral part of your PSPC team.
- Routinely brief the finance staff on the interventions and the results
- Develop tracking mechanisms for the program costs and patient resources used by the PSPC program and incorporate into the organizations formal budgeting process when the program is at the appropriate scale.

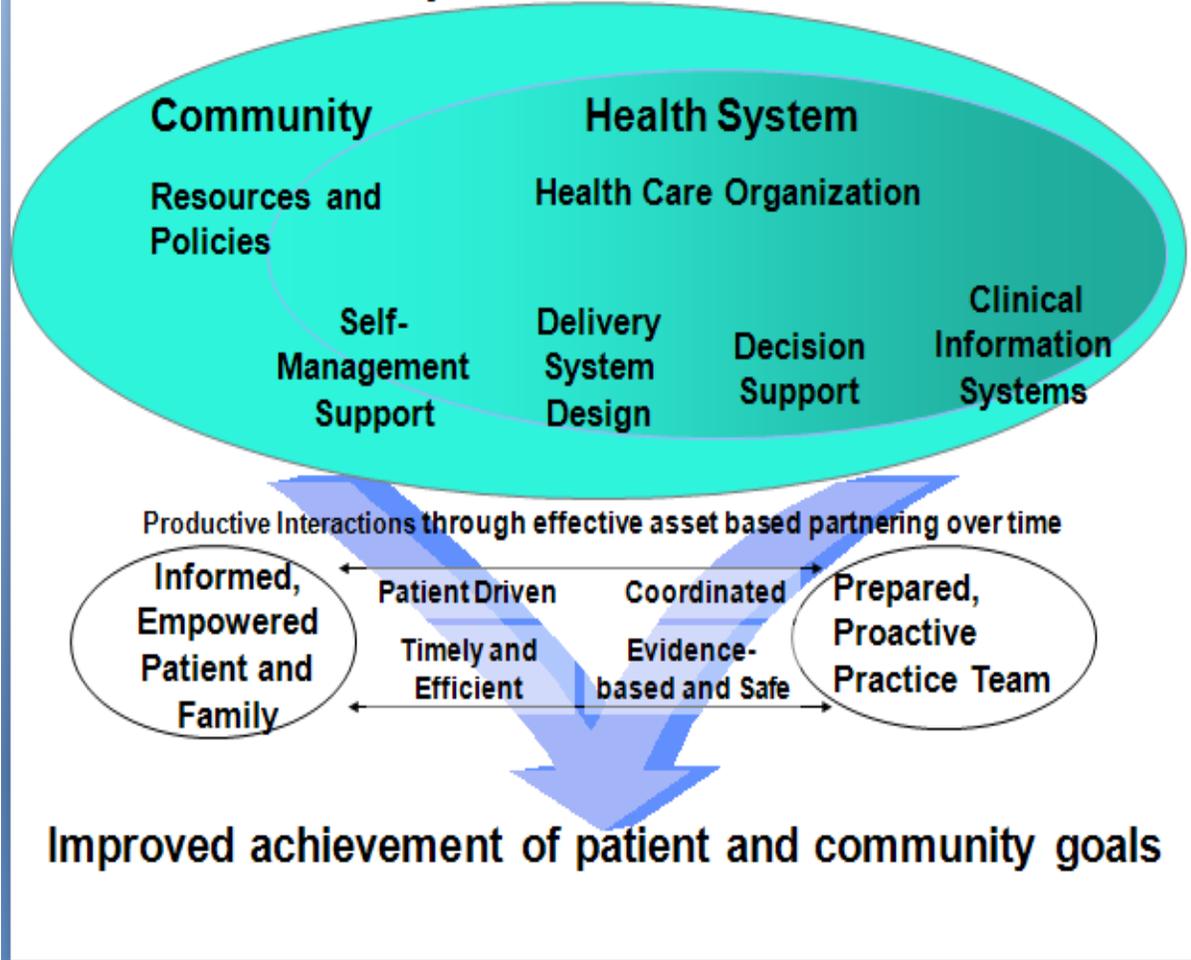
## **EXPANDED CARE MODEL**

### **The Expanded Care Model and the Patient Safety and Clinical Pharmacy Services Collaborative**

#### **What is the Expanded Care Model?**

The Expanded Care Model is based on the Care Model developed by Ed Wagner. Effective outpatient care is characterized by productive interactions between activated patients (as well as their family and caregivers) and a prepared practice team. This care takes place in a healthcare system that effectively utilizes community resources. At the level of clinical practice, four areas (elements of the care model) influence the ability to deliver effective chronic illness care. These are self-management support, delivery system design, decision support and clinical information systems. The goal is to deliver care that is safe, effective, timely, patient-centered, efficient and equitable. System changes are checked against these criteria.

# The Expanded Care Model



## What are the components of the Care Model?

### *Self-Management*

#### **Empower and prepare patients to manage their health and health care.**

“Better patient outcomes are achieved through use of evidence-based techniques that emphasize patient activation or empowerment, collaborative goal setting, and problem-solving skills. The provider team can use standardized assessments of patient self-management needs and activities to enhance its ability to support patients.”

#### **Key Changes:**

- Use self-management tools that are evidence-based and effective.
- Emphasize the patient’s central role in managing their health.
- Use effective self-management support strategies that include assessment, goal-setting, action planning, problem-solving and follow-up.
- Organize internal and community resources to provide ongoing self-management support to patients.
- Utilize community resources to provide support.
- Work with the patient to set and document goals.
- Train the care team to assist patients in meeting their self management goals.
- Use group visits with processes to follow-up and monitor.

### *Decision Support*

#### **Promote clinical care that is consistent with scientific evidence and patient preferences.**

Effective chronic disease management programs follow evidence-based guidelines. This may include reminders, care team education and patient participation in their implementation. This also may include communication between primary care providers and experts or other care delivery specialists.

#### **Key Changes:**

- Identifying existing guidelines and educational needs of staff.
- Consider conducting a baseline chart audit to benchmark your current practice against agreed-upon guidelines.
- Share evidence-based guidelines and information with patients to encourage their participation.
- Link guidelines to the information system to provide prompts.
- Embed evidence-based guidelines into daily clinical practice.

- Integrate specialist expertise and primary care.
- Use proven provider education methods.

## *Clinical Information Systems*

### **Organize patient and population data to facilitate efficient and effective care.**

Providers need access to timely information about their patient population to provide effective quality healthcare. This information system can be as simple as a patient registry or as complicated as an electronic health record with linkages to the practice management system. The critical aspect is the information contained within as well as the utilization prior to, during and following the patient visit. The clinical information system should be established to provide provider reminders for patient tests that may be needed, to assist providers in identifying practices that are resulting in improvements for their panel of patients, and ideally enable the provider to benchmark their performance in assisting patients improve their health outcomes. Integration will require a team approach represented by both clinical and operational personnel.

While the decision to invest in a clinical information system is a first step, it is imperative to assess what is needed for the care delivery organization and to establish processes to ensure that the correct information is being entered into the system. This may require significant planning prior to purchase as the reports and ways the healthcare team utilizes the system are important in selecting the most aligned product at that time. “Make sure the application makes it easy to get patient information into and out of the system. It should also be easy to transfer information to and from other systems (e.g., billing, lab, appointments), or even have a direct interface with these systems.”

#### **Key Changes:**

- Provide timely reminders for providers and patients.
- Identify relevant subpopulations for proactive care.
- Facilitate individual patient care planning.
- Share information with patients and providers to coordinate care.
- Monitor performance of practice team and care system.

## *Delivery System Design*

### **Assure the delivery of effective, efficient clinical care and self-management support.**

Improved management of the patient population requires a change in current practices. The saying that the system is designed perfectly to produce the results you are seeing is correct and concrete. The healthcare delivery system has traditionally been seen as reactive addressing acute needs. In the care model, there is an emphasis on planned care and prevention. It involves expanding the care beyond the traditional provider – patient practice to a team based approach

involving multiple clinical providers including doctors, nurses, pharmacists, health educators, patient advocates, and senior leadership and front office administration.

In improving the healthcare delivery system design it is important to define the roles for each member of the team in support of the planned patient visit. This should include patient education, labs, medication reconciliation, referrals etc. In the planning of the clinical experience it is also important to address the business and financial aspects of the patient visit. Developing practices to be reimbursed for group visits or care and consultation provided by the clinical pharmacist, and supporting patient care when insurance may not be available are ways to accomplish this.

### **Key Changes:**

- Utilize the healthcare information system to proactively review care and plan visits.
- Assign roles, duties, and tasks for planned visits to a multidisciplinary team.
- Use cross training to expand staff capabilities.
- Provide clinical case management services for complex patients.
- Ensure regular follow-up by the care team.
- Utilize planned visits in both individual and group patient settings to support evidence-based care
- Facilitate new thinking in improving patient adherence.
- Regularly evaluate areas for continued improvement.
- Provide care that patients understand and that fits with their cultural background.

## ***Organization of Healthcare***

### **Create a culture, organization and mechanisms that promote safe, high quality care.**

Healthcare systems can create an environment in which organized efforts to improve patient health outcomes and care delivery team process improvement can take hold and flourish. “Critical elements include a coherent approach to system improvement, leadership committed to and responsible for improving clinical outcomes, and incentives to providers and patients (including nonfinancial incentives such as recognition and status) to improve care and adhere to guidelines.”

### **Key Changes:**

- Integrate healthcare delivery improvement in the organization’s vision, mission, goals, performance improvement, and business plans.
- Develop a business case for integrating improvement methods into the healthcare delivery system.
- Conduct a SWOT analysis of the current healthcare practice. Define solutions that address weaknesses and threats while seeking opportunities to tell a performance story of your success to maximize other opportunities.

- Ensure that senior leadership and staff visibly support and promote the improvement efforts. Place snapshots of improvement goals and progress in areas visible to both providers and patients.
- Encourage open and systematic handling of errors and quality problems to improve care.
- Provide incentives based on quality of care.
- Promote effective improvement strategies aimed at comprehensive system change.
- Develop agreements that facilitate care coordination within and across organizations.
- Assign day-to-day leadership for continued clinical improvement.
- Integrate Collaborative models into the way your organization conducts its business daily. Carve out time in leadership dialogue to share best practices that have been tested and to share outcomes improvement from baseline results.

## *Community*

### **Mobilize community resources to meet the needs of patients.**

Integral to effective planned care and strategic utilization of resources is the necessity to engage members of the community outside of the healthcare delivery setting. This may include the health department, community recreational center, academic institutions, and churches. Each of these examples broadens the reach of the care delivery team to a potential larger group that is also engaged in the health of the community.

#### **Key Changes:**

- Establish relationships with organizations to develop support for your internal programs and policies.
- Encourage patients to participate in effective community programs.
- Form partnerships with community organizations to support and develop interventions that fill gaps in needed services.
- Advocate for policies to improve patient care.

#### Resources and References

[Diabetes Training Manual February 2004](#)

[Integrating the Models into Organizational Plans and Business](#)

[Success Using the Care Model](#)

[The Care Model Grace Hill](#)

[Care Model Organization](#)

[Care Model Diagram and Principles](#)

[Getting on an Upward Spiral](#)

## APPENDIX A

### Action Item Footnotes (To see organizations cited—view Appendix B)

Footnote	Organizations Cited
1	2,5,13,18,19,33
2	2,5,13,18,19,33
3	5,10,11,15,18,19,22,28
4	5,10,11,15,18,19,22,28
5	4,5,8,30
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159	2,27
160	2,7,8,9,24,28,32
161	9
162	8,9
163	17,32
164	17,32
165	4,9,24,p
166	9,24,27,32

## APPENDIX B

### High performing organizations

Reference Number	Organization Name	City and State
1	Arrowhead Regional Medical Center	Colton, CA
2	Clinica Campesina	Lafayette, CO
3	Community Access Pharmacy	Des Moines, IA
4	Copper Queen Community Hospital	Bisbee, AZ
5	Denver Health Medical Center	Denver, CO
6	DFD Russell Medical Center*	Leeds, ME
7	Drake School of Pharmacy	Des Moines, IA
8	El Rio Health Center	Tucson, AZ
9	El Rio Pascua Yaqui Satellite Clinic	Tucson, AZ
10	Fairview Northland Medical Center	Princeton, MN
11	Fairview Southdale Medical Center	Minneapolis, MN
12	Guthrie County Hospital	Guthrie Center, IA
13	Harris County Hospital District- Acres CHC	Houston, TX
14	Harris County Hospital District- Ben Taub Hospital	Houston, TX
15	Harris County Hospital District-Baytown CHC	Baytown, TX
16	Iowa/Nebraska Primary Care Association	Urbandale, IA
17	JWCH Medical Clinic-Weingart Center	Los Angeles, CA
18	Kaiser Permanente of Colorado	Aurora, CO
19	Lincoln Community Health Center	Durham, NC
20	Mercy Family Pharmacy*	Dubuque, IA
21	North Colorado Medical Center	Greeley, CO

22	North Dakota Telepharmacy*	Fargo, ND
23	Osterhaus Pharmacy*	Maquoketa, IA
24	Parkland Hospital	Dallas, TX
25	Paynesville Healthcare System	Paynesville, MN
26	Primary Health Care East Side Clinic	Des Moines, IA
27	Queenscare Echo Park and East LA Clinics	Los Angeles/Hollywood, CA
28	Siouxland Community Health Center	Sioux City, IA
29	Southeast Arizona Medical Center	Douglas, AZ
30	Southern Arizona VA Health System	Tucson, AZ
31	The Asheville Project (Mission Hospitals)	Asheville, NC
32	USC School of Pharmacy	Los Angeles, CA
33	West Side Community Health Center	St. Paul, MN
34	Yuma District Hospital	Yuma, CO

\* DENOTES TELEPHONE INTERVIEW

## APPENDIX C

### Corresponding References to NQF Safe Practices and Joint Commission's Patient Safety Goals

- a. NQF Safe Practice 1: Create a health care culture of safety. There is a need to promote a culture that overtly encourages and supports the reporting of any situation or circumstance that threatens, or potentially threatens, the safety of patients or caregivers and that views the occurrence of errors and adverse events as opportunities to make the health care system better.
- b. Joint Commission 2008 National Patient Safety Goal 2: Improve the effectiveness of communication among caregivers. Joint Commission 2008 National Patient Safety Goal 2E: Implement a standardized approach to "hand off" communications, including an opportunity to ask and respond to questions.
- c. Joint Commission 2008 National Patient Safety Goal 2C: Measure and assess, and if appropriate, take action to improve the timeliness of reporting, and the timeliness of receipt by the responsible licensed caregiver, of critical test results and values.
- d. NQF Safe Practice 8: Patient care summaries or other similar records should not be prepared from memory.
- e. NQF Safe Practice 27: Keep workspaces where medications are prepared clean, orderly, well lit, and free of clutter, distraction, and noise.
- f. Joint Commission 2008 National Patient Safety Goal 8: Accurately and completely reconcile medications across the continuum of care.
- g. Joint Commission 2008 National Patient Safety Goal 8B: A complete list of the patient's medications is communicated to the next provider of service when a patient is referred or transferred to another setting, service, practitioner or level of care within or outside the organization. The complete list of medications is also provided to the patient on discharge from the facility.
- h. NQF Safe Practice 9: Ensure that care information, especially changes in orders and new diagnostic information, is transmitted in a timely and clearly understandable form to all of the patient's current health care providers who need that information to provide care.
- i. Joint Commission 2008 National Patient Safety Goal 3: Improve the safety of using medications
- j. Joint Commission 2008 National Patient Safety Goal 3E: Reduce the likelihood of patient harm associated with the use of anticoagulation therapy.
- k. Joint Commission 2008 National Patient Safety Goal 2B: Standardize a list of abbreviations, acronyms, symbols, and dose designations that are not to be used throughout the organization.
- l. NQF Safe Practice 30: Dispense medications in unit-dose or, when appropriate, unit-of-use form, whenever possible.
- m. NQF Safe Practice 5: Pharmacists should actively participate in the medication-use process, including, at a minimum, being available for consultation with prescribers on medication ordering, interpretation and review of medication orders, preparation of medications, dispensing of medications, and administration and monitoring of medications.
- n. NQF Safe Practice 28: Standardize the methods for labeling, packaging, and storing medications.
- o. JCAHO 2008 National Patient Safety Goal 3D: Label all medications, medication containers (for example, syringes, medicine cups, basins), or other solutions on and off the sterile field.
- p. NQF Safe Practice 7: Use only standardized abbreviations and dose designations.
- q. Joint Commission 2008 National Patient Safety Goal 1: Improve the accuracy of patient identification.
- r. Joint Commission 2008 National Patient Safety Goal 1A: Use at least two patient identifiers when providing care, treatment or services.
- s. NQF Safe Practice 6: Verbal orders should be recorded whenever possible and immediately read back to the prescriber; that is, a health care provider receiving a verbal order should read or repeat back the information that the prescriber conveys in order to verify the accuracy of what was heard.

- t. Joint Commission 2008 National Patient Safety Goal 2A: For verbal or telephone orders or for telephonic reporting of critical test results, verify the complete order or test result by having the person receiving the information record and "read-back" the complete order or test result.
- u. Joint Commission 2008 National Patient Safety Goal 3C: Identify and, at a minimum, annually review a list of look-alike/sound-alike drugs used by the organization, and take action to prevent errors involving the interchange of these drugs.
- v. NQF Safe Practice 29: Identify all "high alert" drugs (for example, intravenous adrenergic agonists and antagonists, chemotherapy agents, anti-coagulants and anti-thrombotics, concentrated parenteral electrolytes, general anesthetics, neuromuscular blockers, insulin and oral hypoglycemics, narcotics, and opiates).
- w. Joint Commission 2008 National Patient Safety Goal 13: Encourage patients' active involvement in their own care as a patient safety strategy.
- x. Joint Commission 2008 National Patient Goal 13A: Define and communicate the means for patients and their families to report concerns about safety and encourage them to do so.

## APPENDIX D

### Definitions

#### **Adverse Drug Events (see also potential adverse drug events)**

*Adverse Drug Events are events that result in harm or injury* to the patient due to medication use.

Example – Heart failure symptoms as a result of Actos (pioglitazone) administration.

#### **Clinical Pharmacy Services**

*Clinical Pharmacy Services* are patient-centered services that promote the appropriate selection, utilization, and monitoring of medications to optimize individual therapeutic outcomes. Clinical Pharmacy Services are provided by an interdisciplinary professional healthcare team that ideally includes a clinical pharmacist or guidance of a clinical pharmacist, for individual patients and population management.

*Source:* Dennis Helling, Patient Safety and Clinical Pharmacy Services Collaborative Technical Expert Panel meeting, April 28, 2008

*Clinical Pharmacy* is a health science discipline in which pharmacists provide patient care that optimizes medication therapy and promotes health, wellness, and disease prevention. The practice of clinical pharmacy embraces the philosophy of pharmaceutical care; it blends a caring orientation with specialized therapeutic knowledge, experience, and judgment for the purpose of ensuring optimal patient outcomes. As a discipline, clinical pharmacy also has an obligation to contribute to the generation of new knowledge that advances health and quality of life.

*Source:* American College of Clinical Pharmacy  
<http://www.accp.com/about/clinicalPharmacyDefined.aspx>

*For the purposes of the PSPC, clinical pharmacy services are defined as patient-centered services that promote the appropriate selection and utilization of medications. Its objective is to optimize individual therapeutic outcomes. Clinical pharmacy services are provided by a multi-disciplinary health care team through individualized patient assessment and management. These services are best provided by a pharmacist or by another healthcare professional in collaboration with a pharmacist.*

#### **Clinical Pharmacists**

*Clinical pharmacists* care for patients in all health care settings. They possess in-depth knowledge of medications that is integrated with a foundational understanding of the biomedical, pharmaceutical, socio-behavioral, and clinical sciences. To achieve desired therapeutic goals, the clinical pharmacist applies evidence-based therapeutic guidelines, evolving sciences, emerging technologies, and relevant legal, ethical, social, cultural, economic and professional principles. Accordingly, clinical pharmacists assume responsibility and accountability for managing medication therapy in direct patient care settings, whether practicing independently or in consultation/collaboration with other health care professionals. Clinical pharmacist researchers generate, disseminate, and apply new knowledge that contributes to improved health and quality of life.

Within the system of health care, clinical pharmacists are experts in the therapeutic use of medications. They routinely provide medication therapy evaluations and recommendations to patients and health care professionals. Clinical pharmacists are a primary source of scientifically valid information and advice regarding the safe, appropriate, and cost-effective use of medications.

*Source:* American College of Clinical Pharmacy <http://www.accp.com/about/clinicalPharmacyDefined.aspx>

#### **Cultural Competence**

A set of congruent behaviors, attitudes and policies that come together as a system, agency or among professionals and enable that system, agency or those professionals to work effectively in cross-cultural situations. The word "culture" is used because it implies the integrated pattern of human thoughts,

communications, actions, customs, beliefs, values and institutions of a racial, ethnic, religious or social group. The word competence is used because it implies having a capacity to function effectively as an individual and an organization within the context of the cultural beliefs, behaviors, and needs presented by consumers and their communities.

*Source:* Cross TL, Bazron BJ, Dennis KW, Isaacs MR. Towards a Culturally Competent System of Care: Vol. I. Washington, DC: National Technical Assistance Center for Children's Mental Health, Georgetown University Child Development Center; 1989.

<http://www.nasponline.org/resources/culturalcompetence/definingcultcomp.aspx>

## **Disease Management**

*Disease management* is a set of activities aimed at improving the health and clinical outcomes of a population of patients, defined by all having a chronic medical illness. These activities are often organized through the use of technologies such as electronic health records or disease registry programs. Disease management is proactive, aiming to provide appropriate support to enhance patient self-management activities. Through monitoring of recommended care for each patient, a good disease management program will reach out to patients with reminders, education, and other materials. In such a way, patient self-management is optimized in the interval between visits with the physician. In addition, those patients at highest risk for complications or other negative outcomes can be identified, and appropriate interventions offered. Family physicians serve as the optimal care coordinator to assist patients not only with clinical care and information, but in understanding and navigating the health care system. Care coordination activities may be provided by a non-physician.

*Source:* The American Academy of Family Physicians

<http://www.aafp.org/online/en/home/policy/policies/d/diseasestatemgt.html>

## **Electronic Health Record**

The Electronic Health Record (EHR) is a longitudinal electronic record of patient health information generated by one or more encounters in any care delivery setting. Included in this information are patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data and radiology reports. The EHR automates and streamlines the clinician's workflow. The EHR has the ability to generate a complete record of a clinical patient encounter - as well as supporting other care-related activities directly or indirectly via interface - including evidence-based decision support, quality management, and outcomes reporting.

*Source:* HIMSS [http://www.himss.org/ASP/topics\\_ehr.asp](http://www.himss.org/ASP/topics_ehr.asp)

## **Electronic Medical Record**

An application environment composed of the clinical data repository (CDR), clinical decision support system (CDSS), controlled medical vocabulary (CMV), computerized provider order entry (CPOE), pharmacy and clinical documentation applications. The patient's electronic record is supported across inpatient and outpatient environments; is used by healthcare practitioners to document, monitor and manage care delivery within the care delivery organization (CDO); and is owned by the CDO. The data in the EMR is the legal record of what happened to the patient during encounters at the CDO.

*Source:* Healthcare Informatics Online

[http://www.providersedge.com/ehdocs/ehr\\_articles/Electronic\\_Patient\\_Records-EMRs\\_and\\_EHRs.pdf](http://www.providersedge.com/ehdocs/ehr_articles/Electronic_Patient_Records-EMRs_and_EHRs.pdf)

A repository of electronically maintained information about an individual's health care and corresponding clinical information management tools that provide alerts and reminders, linkages with external health knowledge sources, and tools for data analysis.

*Source:* Shortliffe, E. H., L. E. Perreault, G. Wiederhold, and L. M. Fagan. 2001. *Medical Informatics: Computer Applications in Healthcare and Biomedicine*. New York: Springer-Verlag.

[http://www.nap.edu/openbook.php?record\\_id=10863&page=330](http://www.nap.edu/openbook.php?record_id=10863&page=330)

### **Error Reporting/Error Reporting System**

Reporting systems are designed for individuals to report specific events and, in some cases, conduct root-cause analyses (RCAs) to determine the causal factors for these events. Like surveillance systems, reporting can be used to monitor trends.

*Source:* Institute of Medicine. *Patient Safety: Achieving a New Standard for Care*. National Academy Press. Washington DC: 2004 [http://www.nap.edu/openbook.php?record\\_id=10863&page=342](http://www.nap.edu/openbook.php?record_id=10863&page=342)

*Mandatory reporting:* Those patient safety reporting systems that by legislation and/or regulation require the reporting of specified adverse events, generally events of serious harm and death.

*Source:* Institute of Medicine. *Patient Safety: Achieving a New Standard for Care*. National Academy Press. Washington DC: 2004

[http://www.nap.edu/openbook.php?record\\_id=10863&page=332](http://www.nap.edu/openbook.php?record_id=10863&page=332)

*Voluntary reporting:* Those reporting systems for which the reporting of patient safety events is voluntary (not mandatory). Generally, reports on all types of events are accepted.

*Source:* Institute of Medicine. *Patient Safety: Achieving a New Standard for Care*. National Academy Press. Washington DC: 2004

[http://www.nap.edu/openbook.php?record\\_id=10863&page=335](http://www.nap.edu/openbook.php?record_id=10863&page=335)

### **Health Information Exchange**

Health Information Exchange (HIE) refers to the process of reliable and interoperable electronic health-related information sharing conducted in a manner that protects the confidentiality, privacy, and security of the information.

*Source:* AHIMA <http://www.ahima.org/resources/hie.aspx>

### **Health Literacy**

Health literacy is defined as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.

*Source:* Department of Health and Human Services (US), Office of Disease Prevention and Health Promotion <http://odphp.osophs.dhhs.gov/pubs/#lit>

### **Health Outcomes**

Outcomes research seeks to understand the end results of particular health care practices and interventions. It relies on measures and instruments to measure the results experienced by people who receive particular health care practices and interventions. Results include effects that people experience and care about, such as change in the ability to function and in feelings of well-being. In particular, for individuals with chronic conditions—where cure is not always possible—results include health-related quality of life as well as mortality. By linking the care people get to the outcomes they experience, outcomes research has become the key to developing better ways to monitor and improve the quality of care.

*Source:* Academy Health, Health Outcomes Core Library Module Librarian Expert Discussion Meeting, December 3, 2003 <http://www.nlm.nih.gov/nichsr/corelib/houtcomes.pdf>

Health outcomes research: The measurement of the value of a particular course of therapy. Health outcomes research is based on the principle that every clinical intervention produces a change in the health status of a patient and that change can be measured.

*Source:* Definition of Health Outcomes Research. MedicineNet.Com. (<http://www.medterms.com/script/main/art.asp?articlekey=3667>)

A change in the health status of an individual, group, or population which is attributable to a planned intervention or series of interventions, regardless of whether such an intervention was intended to change health status.

Such a definition emphasizes the outcome of planned interventions (as opposed, for example, to incidental exposure to risk), and that outcomes may be for individuals, groups, or whole populations. Interventions may include government policies and subsequent programs, laws and regulations, or health services and programs, including health promotion programs. It may also include the intended or unintended health outcomes of government policies in sectors other than health. Health outcomes will normally be assessed using health indicators.

*Source:* World Health Organization (WHO). *Health Promotion Glossary*. WHO, Geneva, 1998.  
<http://www.who.int/healthpromotion/about/HPG/en/>

### **High Alert Drugs**

Drugs that bear a heightened risk of causing significant patient harm when they are used in error. Although mistakes may or may not be more common with these drugs, the consequences of an error are clearly more devastating to patients.

*Source:* Institute for Safe Medication Practices <http://www.ismp.org/Tools/highalertmedications.pdf>

### **Medical Errors**

The failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim.

*Source:* Institute of Medicine. *To Err is Human*. Washington DC: National Academy Press; 1999

### **Medical Home**

A Patient-Centered Medical Home is a team-based model of care led by a personal physician who provides continuous and coordinated care throughout a patient's lifetime to maximize health outcomes.

*Source:* American College of Physicians  
[http://www.acponline.org/running\\_practice/pcmh/understanding/what.htm](http://www.acponline.org/running_practice/pcmh/understanding/what.htm)

In 2007, the American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, and American Osteopathic Association—the leading primary care physician organizations—released the Joint Principles of the Patient-Centered Medical Home. In this document they state the characteristics of the Patient Centered Medical Home:

**Personal Relationship:** Each Patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care.

**Team Approach:** The Personal Physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing patient care.

**Comprehensive:** The personal physician is responsible for providing for all the patient's health care needs at all stages of life or taking responsibility for appropriately arranging care with other qualified professionals.

**Coordination:** Care is coordinated and integrated across all domains of the health care system, facilitated by registries, information technology, health information exchange and other means to assure that patient get the indicated care when and where they want it.

**Quality and Safety:** Quality and Safety are hallmarks of the medical home. This includes using electronic medical records and technology to provide decision-support for evidence-based treatments and patient and physician involvement in continuous quality improvement.

**Expanded Access:** Enhanced access to care is available through systems such as open scheduling, expanded hours, and new options for communication between patients, physicians, and practice staff.

**Added Value:** Payment that appropriately recognizes the added value provided to patients who have a Patient-Centered Medical Home.

Source: Guadagnino, C. Implementing a Medical Home. Physician's News Digest. March 2007.  
<http://www.mdclick.com/index/our-mission>

### **Medication Reconciliation**

Medication reconciliation is the process of comparing a patient's medication orders to all of the medications that the patient has been taking. This reconciliation is done to avoid medication errors such as omissions, duplications, dosing errors, or drug interactions. It should be done at every transition of care in which new medications are ordered or existing orders are rewritten. Transitions in care include changes in setting, service, practitioner or level of care. This process comprises five steps: 1) develop a list of current medications; 2) develop a list of medications to be prescribed; 3) compare the medications on the two lists; 4) make clinical decisions based on the comparison; and 5) communicate the new list to appropriate caregivers and to the patient.

Source: Joint Commission [http://www.jointcommission.org/assets/1/18/SEA\\_35.pdf](http://www.jointcommission.org/assets/1/18/SEA_35.pdf)

### **Medication Safety**

Freedom from accidental injury during the course of medication use; activities to avoid, prevent, or correct adverse drug events which may result from the use of medications

Source: American Hospital Association (AHA), Health Research and Educational Trust (HRET), and the Institute for Safe Medication Practices (ISMP). Pathways for Medication Safety. 2002.

### **Medication Therapy Management (MTM)**

Medication Therapy Management (MTM) in pharmacy practice are distinct services or group of services that optimize therapeutic outcomes for individual patients. It includes the following 5 core elements:

Medication Therapy Review: The pharmacist completes a medication therapy review (MTR) consultation with the patient.

Personal Medication Record: The patient receives a new personal medication record (PMR) or the patient's existing PMR is updated.

Medication Action Plan: The patient receives a medication action plan at the end of the MTM encounter

Intervention and/or Referral: The pharmacist provides consultative services and intervenes to address medication-related problems; when necessary, the pharmacist refers the patient to other healthcare providers

Documentation and Follow-up: MTM services are documented in a consistent matter, and a follow-up MTM visit is schedule with the patient, based on needs, of the patient is transitioned from one care setting to another.

Source: Medication Therapy Management in Pharmacy Practice: Core Elements of an MTM Service Model Version 2.0. *American Pharmacists Association and the National Association of Chain Drug Stores Foundation*. March 2008.

Medication Therapy Management is a distinct service or group of services that optimize therapeutic outcomes for individual patients. Medication Therapy Management Services are independent of, but can occur in conjunction with, the provision of a medication product.

Medication Therapy Management encompasses a broad range of professional activities and responsibilities within the licensed pharmacist's or other qualified health care provider's scope of practice. These services include but are not limited to the following, according to the individual needs of the patient:

- a. Performing or obtaining necessary assessments of the patient's health status;
- b. Formulating a medication treatment plan;
- c. Selecting, initiating, modifying, or administering medication therapy;
- d. Monitoring and evaluating the patient's response to therapy, including safety and effectiveness;

- e. Performing a comprehensive medication review to identify, resolve, and prevent medication-related problems, including adverse drug events;
- f. Documenting the care delivered and communicating essential information to the patient's other primary care providers;
- g. Providing verbal education and training designed to enhance patient understanding and appropriate use of his/her medications;
- h. Providing information, support services and resources designed to enhance patient adherence with his/her therapeutic regimens;
- i. Coordinating and integrating medication therapy management services within the broader health care-management services being provided to the patient.

A program that provides coverage for Medication Therapy Management services shall include:

- a. Patient-specific and individualized services or sets of services provided directly by a pharmacist to the patient\*. These services are distinct from formulary development and use, generalized patient education and information activities, and other population-focused quality assurance measures for medication use.
- b. Face-to-face interaction between the patient\* and the pharmacist as the preferred method of delivery. When patient-specific barriers to face-to-face communication exist, patients shall have equal access to appropriate alternative delivery methods. Medication Therapy Management programs shall include structures supporting the establishment and maintenance of the patient\*-pharmacist relationship.
- c. Opportunities for pharmacists and other qualified health care providers to identify patients who should receive medication therapy management services.
- d. Payment for Medication Therapy Management Services consistent with contemporary provider payment rates that are based on the time, clinical intensity, and resources required to provide services (e.g., Medicare Part A and/or Part B for CPT & RBRVS).
- e. Processes to improve continuity of care, outcomes, and outcome measures.

\* In some situations, Medication Therapy Management Services may be provided to the caregiver or other person involved in the care of the patient.

*Source: American Pharmacist Association (APhA) MTM Services Working Group. Medication Therapy Management Services. Definition and Program Criteria. Approved July 27, 2004.*

<http://www.aacp.org/resources/historicaldocuments/Documents/MTMServicesDefinitionandProgramCriteria04.pdf>

## **Medication Use System**

A combination of interdependent processes that share the common goal of safe, effective, appropriate, and efficient provision of drug therapy to patients. Major processes in the medication use system are: selecting and procuring; storage; prescribing; transcribing and verifying/reviewing; preparing and dispensing; administering and monitoring.

*Sources: Cohen MR and Smetzer JL. Risk analysis and treatment. In Cohen MR (Ed.) Medication Errors. American Pharmaceutical Association, Washington, 1999, p20.1-20.34.*

*American Hospital Association (AHA), Health Research and Educational Trust (HRET), and the Institute for Safe Medication Practices (ISMP). Pathways for Medication Safety. 2002.*

*The Joint Commission. Sentinel Health Policy and Procedures Revised: July 2002.*

## **Patient Centered Care**

Patient-Centered Care is defined as care that is respectful of and responsive to individual patient preferences, needs, and values, and ensures that patient values guide all clinical decisions (IOM 2001). Dimensions of patient-centered care include patient empowerment and activation; cultural competencies;

respect for patients' values, preferences, and expressed needs; coordination and integration of care; information, communication, and education; physical comfort and support; access and navigation skills; community outreach; and involvement of family and friends.

*Sources:* Silow-Carroll, Alteras, and Stepnick, 2006; Gerteis, Edgman-Levitan, and Daley, 1993

### **Patient Safety**

Freedom from accidental or preventable injuries produced by medical care.

*Source:* Agency for Health Care Research and Quality <http://www.psnet.ahrq.gov/glossary.aspx#P>

### **Patient Safety Culture**

The safety culture of an organization is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to and the style and proficiency of, an organization's health and safety management. Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety, and by confidence in the efficacy of preventive measures.

*Source:* Organizing for Safety: Third Report of the ACSNI (Advisory Committee on the Safety of Nuclear Installations) Study Group on Human Factors. Health and Safety Commission (of Great Britain). Sudbury, England: HSE Books, 1993.

<http://www.ahrq.gov/qual/patientsafetyculture/hospcult.pdf>

While an exact definition of a safety culture does not exist, a recurring theme in the literature is that organizations with effective safety cultures share a constant commitment to safety as a top-level priority, which permeates the entire organization. More concretely, noted components include: 1) acknowledgment of the high risk, error-prone nature of an organization's activities, 2) blame-free environment where individuals are able to report errors or close calls without punishment, 3) expectation of collaboration across ranks to seek solutions to vulnerabilities, and 4) willingness on the part of the organization to direct resources to address safety concerns. Based on extensive field work in multiple organizations, Roberts et al have observed several common, cultural values in reliability enhancing organizations: "interpersonal responsibility; person centeredness; [co-workers] helpful and supportive of one another; friendly, open sensitive personal relations; creativity; achieving goals, strong feelings of credibility; strong feelings of interpersonal trust; and resiliency.

*Source:* *Making Health Care Safer: A Critical Analysis of Patient Safety Practices*. Evidence Report/Technology Assessment: Number 43. AHRQ Publication No. 01-E058, July 2001. Agency for Healthcare Research and Quality, Rockville, MD. <http://archive.ahrq.gov/clinic/ptsafety/>

Culture of safety: an integrated pattern of individual and organizational behavior based upon shared beliefs and values that continuously seek to minimize patient harm which may result from the processes of care delivery.

*Source:* Aspden P, Corrigan JM, Wolcott J, and Erickson SM (Eds) *Patient Safety: Achieving a New Standard for Care*. Institute of Medicine, Committee on Data Standards for Patient Safety. National Academy Press, Washington, D.C., 2004, 550p.

### **Pharmacy and Therapeutics (P&T) Committee**

The Pharmacy and Therapeutics (P & T) Committee is an important medical staff advisory group. As the primary, formal communication link between the pharmacy and medical staff, the P & T Committee is of particular importance to the department of pharmacy services. All matters pertaining to the use of medications within the institution, including pharmacy programs, must be reviewed and approved through the committee. In addition, medication formulary data is reviewed through the committee and recommendations are offered to the medical staff. Such a wide diversification of involvement and activity necessitates the effective communication between all committee members. An active involvement in the committee by the department of pharmacy services is vital in order to develop a contemporary and

progressive institutional pharmacy program.

*Source:* Bender, F.H., The Pharmacy and Therapeutics Committee Part 1: overview. Hosp Formul. 1983 May; 18(5).

### **Population of Focus (PoF)**

The definition of the POF as defined by PSPC is the “total number of patients to be focused on and tracked in this PSPC initiative. The POF is usually focused on a specific disease process but can also be defined by geographic location, provider group, clinic, or patient demographics.”

The POF should include the total number of patients, as defined by the team, who are eligible to receive clinical pharmacy services provided during this PSPC initiative. The POF is the group of patients that you want to have an impact on through the work of PSPC and the size of the POF should be manageable for your team. The number of patients in the POF may change from month to month.

### **Population of Service (POS)**

In most cases the PoF is a small proportion of the total high risk population with the health status marker. There are other high risk groups served by organizations that can benefit from Clinical Pharmacy Services (CPS) interventions. As a team advances in the PSPC collaborative process they begin to scale the Populations of Focus up to serve all patients with the same risk and health status markers. At some point teams spread the program to other high risk groups defined by different health status markers. This is referred to as the Population of Service (POS).

### **Potential Adverse Drug Event (see also adverse drug event)**

*Potential Adverse Drug Event (pADE)* is defined as potential harm that was identified and avoided with appropriate interventions before reaching the patient

Example – Pharmacist catches an allergy to penicillin and calls the doctor to change amoxicillin to azithromycin before dispensing to patient

Example – A care team member notices a duplication of drug therapy (lisinopril and ramipril) and intervenes to have one of the medications discontinued before the patient receives the medication

### **Self Management**

Self-management means taking as much control as you can of your health care and health behaviors. Like people who run a business or take care of a family, self-managers need to be organized. They need a set of useful skills and habits, and they need support.

There are four basic strategies to self-management. They can be applied to anything you want to accomplish – from healthier eating to finding a better job.

**Goal Setting:** Most people do better with self-management if they have positive goals to motivate them, ways they want their lives and health to improve. Change is hard, and we need reasons to do it. can be about physical fitness, like walking a certain distance, or they could be about your life, like going back to school or being able to play with your dog. They can be anything you want.

**Action Planning:** large goals into achievable chunks that we feel confident about is a great strategy for success. Action planning identifies small, specific steps toward larger goals, and strategies to succeed at those steps. The key is to make the plans specific - what, when, where, with whom, how often.

**Tracking Changes:** If you're trying to make a change in your life, how will you know when you have done it? We tend to forget what we have done or how we have changed over time. How do we remember the way things used to be? It helps to keep a record of your activities. These records (or logs) will help you see what's working and what's getting in your way.

**Problem-Solving:** has a way of interfering with self-management. Usually people encounter some barriers they didn't expect when they made their plans. Some basic steps to overcome problems have been studied

and verified by social scientists and therapists over the years. You can use these steps to tackle any barrier.

*Source:* New Health Partnerships

[http://www.ihl.org/offerings/Initiatives/PastStrategicInitiatives/NewHealthPartnerships/Documents/NewHealthPartnerships\\_PatientGuideSelfMgmtSupport\\_Jun11.pdf](http://www.ihl.org/offerings/Initiatives/PastStrategicInitiatives/NewHealthPartnerships/Documents/NewHealthPartnerships_PatientGuideSelfMgmtSupport_Jun11.pdf)

“Self-management support is the assistance caregivers give to patients with chronic disease in order to encourage daily decisions that improve health-related behaviors and clinical outcomes. Self-management support may be viewed in two ways: as a portfolio of techniques and tools that help patients choose healthy behaviors; and as a fundamental transformation of the patient-caregiver relationship into a collaborative partnership... The purpose of self-management support is to aid and inspire patients to become informed about their conditions and take an active role in their treatment.”

*Source:* Tom Bodenheimer, Helping Patients Manage Their Chronic Conditions

<http://www.chcf.org/publications/2005/06/helping-patients-manage-their-chronic-conditions>